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ABSTRACT

This teachers guide presents lesson aids on how to buy food for home economics or consumer education in high school or adult education courses. An introductory section explains how to get the supplementary materials (publications, films, and slides/filmstrips), what the contents and objectives of these materials are, suggestions for lesson preparation, and background materials for the instructor. Topics of the lessons are meat, dairy products, eggs, poultry, fresh fruits and vegetables, canned and frozen fruits and vegetables, and more for your money. Each of these lessons contains a list of objectives, materials to use, suggestions for teaching, glossary, and quizzes. (CT)

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AGRICULTURE HANDBOOK NO. 443

How to Buy FOOD

LESSON AIDS FOR TEACHERS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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AGRICULTURAL MARKETING SERVICE U.S. DEPARTMENT OF AGRICULTURE

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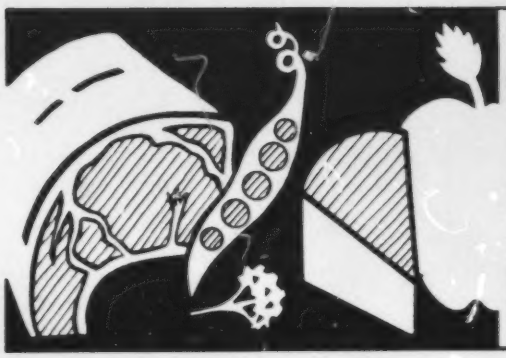


HOW TO BUY FOOD LESSON AIDS FOR TEACHERS

USING THESE LESSON AIDS

These lesson aids can be used within home economics or consumer education courses or in a separate course. They are suitable for both high school and adult education courses.

The aids are intended to be used with the basic materials listed below, as a base for an instruction series. The supplementary materials listed after the basic materials are of a general nature and can be used at the instructor's discretion. In addition, each lesson aid has a list of supplementary materials that deal with that specific topic.

Some pages in each lesson aid are designed for reproduction by offset, or other copying equipment, so that the teacher may use them for handouts to the students.

How to Get Materials

Publications

Unless otherwise mentioned, single copies of all publications listed in this booklet are available free from the Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. USDA does not sell publications.

Any publications indicated for sale only may be purchased from the Government Printing Office, Washington, D.C. 20402, at the price listed.

Prices are given for all publications, including those available free, because multiple copies must be purchased from GPO. Discounts of 25 percent are given for orders of 100 or more of any one publication.

Always include publication name and number, and your zip code, when ordering.

Films

Most films may be borrowed from State film libraries (see list on pages 1-2). If the library does not have the film you want to borrow, write to Information Division, Agricultural Marketing Service, USDA, Washington, D.C. 20250, for a copy. Films may be purchased from the Motion Picture Division, Office of Communication, USDA, Washington, D.C. 20250. When buying a film, allow at least one month for delivery, and make checks payable to USDA Office of Communication. Prices are listed with titles.

Slides/Filmstrips

Slide sets may be purchased from Photography Division, Office of Communication, USDA, Washington, D.C. 20250, at prices listed with titles. Make checks payable to USDA Office of Communication. Allow one month for delivery.

If slide set is available as filmstrip also, filmstrip may be bought from Photo Lab, Inc., 3825 Georgia Ave., N.W., Washington, D.C. 20011, at price listed. Allow two weeks for delivery.

If audio cassette is available, it may be purchased from USDA when buying slide sets or from Photo Lab, Inc., when buying filmstrip.

STATE FILM LIBRARIES

ALA.—Cooperative Extension Film Library, Auburn University, Auburn, AL 36830

ALASKA—Division of Libraries, Pouch G, Juneau, AK 99801

ARIZ.—Bureau of Audio-Visual Services, University of Arizona, Tucson, AZ 85721

ARK.—Coop. Exten. Film Library, Univ. of Arkansas, P.O. Box 391, Little Rock, AR 72203

CALIF.—U.C. Agr. Exten., Visual Aids, 1422 South 10th St., Richmond, CA 94804

COLO.—Film Library, Office of Educational Media, Colo. State Univ., Fort Collins, CO 80521

CONN.—Audiovisual Center, Univ. of Connecticut, Storrs, CT 06268

DEL.—Coop. Exten. Film Library, Univ. of Delaware, Agr. Hall, Newark, DE 19711

FLA.—Motion Picture Svc., Florida Coop. Exten. Svc., Univ. of Florida, Editorial Department, Gainesville, FL 32601

GA.—Film Library, Coop. Exten. Svc., Univ. of Georgia, Athens, GA 30601

HAWAII—Film Library, Coop. Exten. Svc., College of Tropical Agr., Univ. of Hawaii, 2500 Dole Street, Rm 108, Honolulu, HA 96822

IDAHO—Audio Visual Center, Univ. of Idaho, Moscow, ID 83843

ILL.—Visual Aids Svc., Univ. of Illinois, Div. of Univ. Exten., 1325 South Oak, Champaign, IL 61820

IND.—Audio Visual Center, Purdue Univ. Stewart Center, West Lafayette, IN 47907

IOWA—Media Resources Center, Iowa State Univ., Pearson Hall, Ames, IA 50010

KANS.—Coop. Exten. Svc., Film Library, Kansas State Univ., Umberger Hall, Manhattan, KS 66502

KY.—Audio Visual Svc., Univ. of Kentucky, Scott St. Bldg., Lexington, KY 40506

LA.—Coop. Exten. Svc., Film Library, Louisiana State Univ., Knapp Hall, Univ. Station, Baton Rouge, LA 70803

MAINE—Instructional Systems Center, Univ. of Maine, Orono, ME 04473

MD.—Audiovisual Svc., Univ. of Maryland, Rm. 1, Annapolis Hall, College Park, MD 20742

MASS.—Krasker Film Library, School of Education, Boston Univ., 765 Commonwealth Ave., Boston, MA 02215

MICH.—Instructional Media Center, Michigan State Univ., East Lansing, MI 48823

MINN.—Agr. Exten. Svc., Film Library, Univ. of Minnesota, St. Paul, MN 55101

MISS.—Coop. Exten. Svc., Film Library, Miss. State Univ., Mississippi State, MS 39762

MO.—Audio Visual & Comm. Svc., Univ. of Missouri, 203 Whitten Hall, Columbia, MO 65201

MONT.—Campus Film Library for Coop. Exten. Svc., Montana State Univ., Bozeman, MT 59715

NEBR.—Univ. of Nebraska, Instructional Media Center, 901 N. 17th, Rm. 421, Lincoln, NB 68508

NEV.—Audio Visual Center, University of Nevada, Reno, NV 89507

N.H.—Audio Visual Center, Univ. of New Hampshire, Hewitt Hall, Durham, NH 03824

N.J.—Comm. Center College of Agr. and Environmental Science, Rutgers Univ., New Brunswick, NJ 08903

N.M.—Coop. Exten. Svc., Film Library, New Mexico State Univ., Drawer 3AI, Las Cruces, NM 88003

N.Y.—Cornell Univ. Film Library, 31 Roberts Hall, Ithaca, NY 14850

N.C.—Dept. of Agr. Inf., North Carolina State Univ., P.O. Box 5037, Raleigh, NC 27607

N.D.—Coop. Exten. Svc., Film Library, North Dakota State Univ., State Univ. Station, Fargo, ND 58102

OHIO—Exten. Svc. Film Library, Ohio State Univ., 2120 Fyffe Rd., Columbus, OH 43210

OKLA.—Audio Visual Center, Oklahoma State Univ., Stillwater, OK 74074

OREG.—Audio Visual Instruction, DCE Building, P.O. Box 1491, Portland, OR 97207

PA.—Agr. Exten. Svc., Pennsylvania State Univ., 104 Agr. Adm. Bldg., Univ. Park, PA 16802

P.R.—Agr. Exten. Svc., Univ. of Puerto Rico, Mayaguez Campus, Rio Piedras, PR 00928

R.I.—Audio Visual Center, Univ. of Rhode Island, Kingston, RI 02881

S.C.—Agr. Comm. Dept., Clemson Univ. Exten. Svc., Rm. 92, Plant & Animal Sci. Bldg., Clemson, SC 29631

S.D.—Coop. Exten. Svc., Film Library, South Dakota State Univ., Brookings, SD 57006

TENN.—Teaching Materials Center, Div. of Continuing Ed., Univ. of Tennessee, Knoxville, TN 37916

TEX.—Agr. Comm., Texas A&M Univ., Rm. 201, Svc. Bldg., College Station, TX 77843

UTAH—Audio Visual Svcs., Utah State Univ., Logan, UT 84321

VT.—The Audio Visual Center, Univ. of Vermont, Ira Allen Chapel, Burlington, VT 05401

VA.—Media Svcs., Virginia Polytechnic Institute, Patton Hall, Blacksburg, VA 24061

WASH.—Audio Visual Center, Washington State Univ., Pullman, WA 99163

W.V.—Coop. Exten. Svc., West Virginia Univ., 215 Coliseum, Morgantown, WV 26506

WISC.—Univ. of Wisconsin—Exten. Bureau of Audio Visual Instruction, P.O. Box 2093, Madison, WI 53701

WYO.—Audio Visual Svc., The Univ. of Wyoming, Laramie, WY 82070

Basic Materials

1. **The "How to Buy Food" series.** These pamphlets may be used by the instructor as the information base for the course. Each pamphlet provides how-to-buy information for a particular type of food —for example, beef steaks, poultry, fresh fruits, etc. These pamphlets provide in more detail the information given in the other basic materials.

All but one of the pamphlets have been published in Spanish as well as English. Spanish titles follow English titles in parentheses.

How to Buy Beef Roasts (G-146) 25¢.
(Como Comprar los Asados de Carne de Vaca) (G-146S) 30¢

How to Buy Beef Steaks (G-145) 25¢.
(Como Comprar Bistecs) (G-145S) 35¢.

How to Buy Canned and Frozen Fruits (G-191) 50¢.
(Como Comprar la Fruta Enlatada y Congelada) (G-191S) 50¢.

How to Buy Canned and Frozen Vegetables (G-167) 45¢.
(Como Comprar Hortalizas Enlatadas y Congeladas) (G-167S) 30¢.

How to Buy Cheese (G-193) 35¢.
(Como Comprar el Queso) (G-193S) 35¢.

How to Buy Dairy Products (G-201) 25¢.
(Como Comprar Productos Lacteos) (G-201S) 25¢.

How to Buy Dry Beans, Peas, and Lentils (G-177) 25¢.
(Como Comprar Habas, Guisantes y Lentejas en Seco) (G-177S) 25¢.

How to Buy Eggs (G-144) 25¢.
(Como Comprar los Huevos) (G-144S) 25¢.

How to Buy Fresh Fruits (G-141) 30¢.
(Como Comprar Fruta Fresca) (G-141S) 30¢.

How to Buy Fresh Vegetables (G-143) 35¢.
(Como Comprar Hortalizas Frescas) (G-143S) 35¢.

How to Buy Lamb (G-195) 25¢.
(Como Comprar Cordero) (G-195S) 25¢.

How to Buy Meat for Your Freezer (G-166) 35¢.
(Como Comprar Carne para Conservar en el Refrigerador) (G-166S) 35¢.

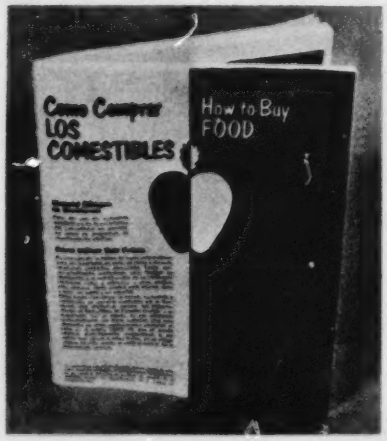
How to Buy Potatoes (G-198) 25¢.

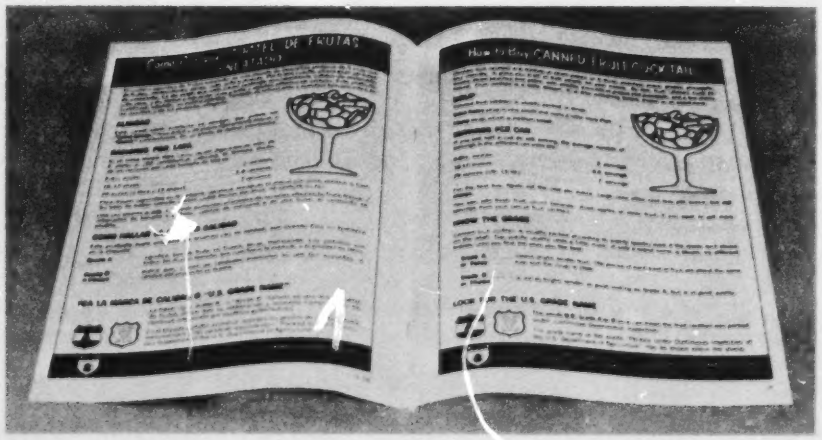
How to Buy Poultry (G-157) 25¢.
(Como Comprar las Aves de Corral) (G-157S) 30¢.

2. **"How to Buy Food—Como Comprar los Comestibles—A Bilingual Teaching Aid."** This booklet has simple "How to Buy" information on 31 different food products with Spanish and English texts on facing pages. Each page is perforated and may be removed and duplicated for distribution to class members. (PA-976) 80¢.

3. **A "How to Buy Food" poster set.** These ten 15-by-20-inch two-color posters give simple shopping tips for five major food categories: meat, dairy products, eggs, poultry, and fruits and vegetables. A88.38:G75. $3.75.

4. **Separate one-page flyers.** Since publication of the bilingual teaching aid, USDA's Agricultural Marketing Service has prepared separate one-page, reproducible "How To Buy" flyers on 15 additional foods: Applesauce; Bacon; Canned Pears; Canned Pineapple; Celery; Corn; Dry Beans, Peas, and Lentils; Frozen Strawberries; Mixed Nuts in the Shell; Peaches; Pears; Rice; Sweetpotatoes; Tomato Catsup, Sauce, Puree, and Paste; and Tomatoes. Also available are reproducible one-page flyers on How to Cut Up A Chicken, How to Debone Chicken Breasts, and How to Carve Roast Turkey. Single free





copies of any of these flyers or the complete set are available from Information Division, AMS, USDA, Washington, D.C. 20250. The individual flyers are listed under the appropriate lesson aid as "separate one-page flyers."

Supplementary Materials

1. **Other USDA publications about buying and using food.** The following list offers a choice to instructors who want to supplement the "How to Buy" materials.

Family Fare—A Guide to Good Nutrition (G-1) $1. This booklet provides information on meal management, including nutritional information, buying tips, and recipes.

Family Food Buying: A Guide for Calculating Amounts to Buy and Comparing Costs (HERR 37) For sale only. 70c. This book can serve as a reference to help instructors teach students:

- how much food to buy to provide the number of servings needed by their families, and
- to compare the costs of foods in different market forms (such as frozen, fresh, canned).

Food for Us All—The 1969 Yearbook of Agriculture. For sale only. $5.95. This book deals in large part with how to buy food, and was written by USDA commodity specialists. It also includes information on nutrition, cooking, and recipes.

Keeping Food Safe to Eat (G-162) 30¢. This bulletin tells how to protect your family from illness caused by harmful bacteria in food.

Meat & Poultry Inspection: A Capsule Summary* (MPI-4). This leaflet explains USDA's meat and poultry inspection program.

Nutritive Value of Foods (G-72) 85¢. This booklet contains tables listing vitamin, mineral, protein, and calorie content of a wide variety of commonly used foods.

Standards for Meat and Poultry Products—A Consumer Reference List.* This leaflet tells the minimum percentage of meat or poultry required for a product to be labeled by a particular name. Many popular products are listed.

USDA Grade Standards for Food—How They Are Developed and Used (PA-1027) 30¢. This pamphlet provides the history and background of grade standards.

Your Money's Worth in Foods (G 183) 50¢. This book tells how to plan well-balanced meals that fit your budget.

2. **Consumer Information.** This catalog is available free from the Consumer Information Center, Pueblo, Colorado 81009. It offers Federal Government publications of consumer interest, including many of the publications listed in this booklet.

3. **Films.**

Janet and the Genie—A 28½-minute, color, sound film aimed at high school home economics students and giving a rundown on grades for various kinds of foods, as well as meat and poultry inspection. The film is entertaining, rather than documentary, in approach. Purchase price $150.

That The Best Will Be Ours—Color sound film on meat and poultry inspection. Runs about 18 minutes. Examines the establishment and growth of USDA's meat and poultry inspection program. Purchase price $125.

4. **Crossword puzzle.** The crossword puzzle at the back of this booklet may be reproduced for class use. It would be best used at the end of the course, after students have become familiar with the words in the glossaries in each lesson aid.

5. **Other materials.** Additional visuals and publications pertaining to particular foods are listed with each lesson aid.

Lesson Aid Contents

Each of the first six lesson aids covers a major food category: meat, dairy products, eggs, poultry, and both fresh and processed fruits and vegetables. The seventh aid, "More for Your Money," cuts across food categories. Depending on the time being allowed for each lesson and for the overall course, the instructor may want to combine two lessons, or use two or more instruction periods for one lesson. An extra period might be used, for example, if a movie is shown or a guest speaker is scheduled.

The "How to Buy" pamphlets and flyers from the "How to Buy Food—Como Comprar los Comestibles" booklet may be followed for the basic lecture in each lesson. Lectures are not detailed in the lesson aids, since these materials are intended for a wide variety of audiences. Each instructor can best judge how to present the materials to any particular class

Each lesson aid contains:

1. A list of "How to Buy" materials to use.
2. A list of additional materials the instructor may choose from to supplement the lessons.
3. Suggestions for teaching.
4. A glossary of terms and symbols used in the "How to Buy" materials for students to learn before going on to the next lesson. This may be removed and reproduced to distribute to students.
5. A quiz or quizzes. These quizzes are meant to be an aid to teaching, not a test of knowledge. They are not designed to measure a student's knowledge of the subject, but to stimulate interest. They can be given before or after a lesson, or both, so students can see how much they've learned. These also may be reproduced for students.
6. Tables and charts. In some of the lesson aids, tables and charts are included providing useful buying information. These may be reproduced, too.

* Available from Information Division, Animal and Plant Health Inspection Service, USDA, Washington, D.C. 20250.

Lesson Aid Objectives

From these lesson aids:

1. Students should learn how to buy food both for quality and economy.

2. Students should learn how to use the U.S. Department of Agriculture quality grades when shopping for food. This does **not** mean buying only the best. Grades identify a range of quality, so that the shopper may select the quality suitable for the intended use. It should be emphasized that USDA grades are not an indication of nutritional value. Grades describe quality only.

Suggestions for Lesson Preparation

To assure adequate preparation, review these points before each lesson:

1. Are enough copies available of the appropriate pages of "How to Buy Food—Como Comprar los Comestibles"? You may want to hand out flyers covering the subject for the next class so your students can read them in advance.

2. Are all visual aids and demonstration materials present?

3. If a guest speaker has been scheduled, have the time, place, and topic of the lesson been confirmed? (A phone call the day before might be a good idea.)

If you would like to have a specialist speak, you may be able to arrange it with a U.S. Department of Agriculture inspector or grader. To find the one nearest you, look in the phone book under the U.S. Government heading. Then look under U.S. Department of Agriculture, Agricultural Marketing Service, then the appropriate Division (Livestock, Dairy, Poultry, or Fruit and Vegetable). Or write, care of the Division: Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

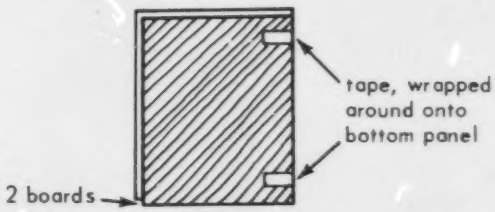
4. If film or slides will be shown, is all the necessary equipment available—projector, screen, script? (When ordering film, be sure to allow enough time for delivery.)

5. Are the posters pertaining to the particular lesson displayed? They can be mounted on a bulletin board or a flip chart, or you can make a tabletop exhibit. The following guide offers a handy way to make a tabletop exhibit.

A. Obtain the ten **"How to Buy"** posters.

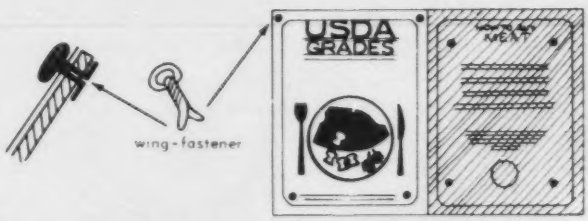
B. Cut illustration board into ten pieces, each 15 x 20 inches—the same size as the poster. (A 30" x 40" standard-size illustration board can be cut to make four panels. Corrugated cardboard or any other durable material will also work.)

C. Place one piece of illustration board on top of another, joining the two with a piece of tape at the upper and lower corners on one side, as shown

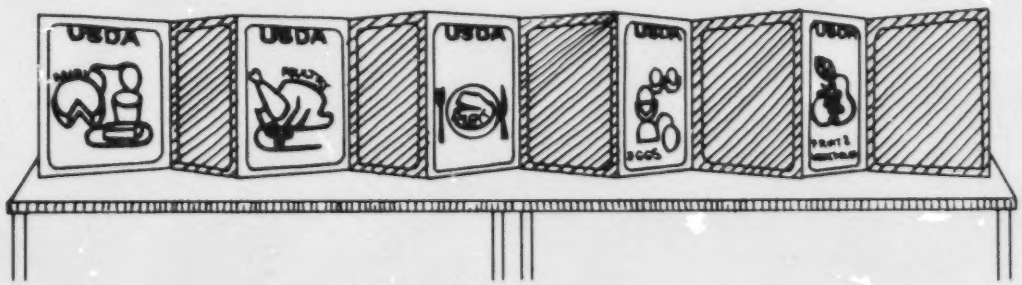


(4-inch pieces of filament or plastic tape work well. Masking tape can also be used). Repeat the process to make 5 double panel units.

D. Open one unit of joined panels like a book. Place the poster with the words **"USDA Grades Help You Choose. . . ."** face up on the left panel and the black poster **"How to Buy. . . ."** on the right panel. An easy way to attach the posters to the panels is to run a wing-fastener through a hole at each of the four corners spreading the fastener on the back side, as shown. (The tape hinges will be given extra strength if the fasteners are put directly through them.) Stagger the fasteners somewhat, so the left and right panels can be completely closed, like a book.



E. Now you're ready to set up your exhibit as in the picture below. A 10-foot or two 5-foot tables work well.



Background for the Instructor

The following provides instructors with background information on USDA's grading services as a whole.

The instructor may want to offer an orientation lesson, using the information below along with publications and visuals offered under the "Supplementary Materials" listing at the beginning of this booklet.

The History of Grading

Quality measurement is a comparatively modern development. Man has been measuring sizes and distances—more or less accurately–since the dawn of recorded history (in ancient Egypt, the length of the Pharaoh's foot was an official measurement). But quality measurement did not appear until a few hundred years ago.

Consumers in 13th century England probably got the benefit of the first real quality standards when the king decreed "assizes" for bread. These assizes were enforced by local officials to make sure that bakers gave full quality and weight in the loaves.

Under the assize, "simnel loaves" had to be made from the finest white bread flour. "Treet bread" was brown bread, probably fairly close to simnel loaf in quality. There was also a "wastel loaf" far inferior to the first two types. "Horse bread" was made from beans, and seems to have been sold primarily to unwary travelers at the local inns. The prices of the loaves were fixed, and the required weight of each type was varied according to the price of the grain. The standards weren't too exact, and local officials served as "graders" when there was a dispute.

There were similar assizes for such products as wines, candles, pepper, and many manufactured articles.

Here in America the earliest market standards were those brought from England, during the colonial period. Most of the colonies had an assize of bread, for instance.

But grading as we know it today is unique to the 20th century.

To fit into an age of mass production and mass marketing, it has become necessary for farm products to be sorted into uniform groups after they are produced. The sorting process is what we know now as grading.

During the early 1800's there were no national official standards—and the watchword of the day was "buyer beware." Individual firms and trade organizations adopted various systems of grading. But each was different and none was understood throughout the country.

Buyers and sellers were often miles apart, and they needed some way to accurately describe the quality of their goods before they would agree on the price. Lending agencies needed to know the market value of farm products that were offered as loan collateral.

To solve the problems, the first step toward establishing official national standards was taken in 1907, when Congress voted money to the U.S. Department of Agriculture to study U.S. standards for farm products. The first official standards were issued in 1909, for cotton. However, there were still no official graders to interpret the standards.

The grading service itself had to wait until World War I. Then with the country facing an all-out drive to produce more food and fiber, it became apparent that the country needed an official inspection agency that would handle disputes between buyers and sellers.

When this agency was created, it was called the Food Products Inspection Service, and its services were available on request for a fee. Producers, shippers, and receivers soon began to appreciate the practical value of an inspection service operated under uniform procedure in the different markets.

Present USDA Grade Standards for Food

Today, Federal and State graders work in all 50 States under the coordination of USDA's Agricultural Marketing Service.

USDA provides food grading services—official certification of the grade of products—for each commodity group (meat, poultry, eggs, dairy products, and fresh and processed fruits and vegetables). Grading today is voluntary, except where required under local ordinances or industry programs, and is provided, as it was under the Food Products Inspection Service, for a fee. State departments of agriculture cooperate in providing grading services.

Although grade standards for each commodity group were developed independently of each other, the purpose of the standards is basically the same: to make buying and selling more efficient by providing a common language for trading and a means of establishing prices.

The U.S. grade standards provide a way of classifying the entire range of quality of a product. Because some products are naturally more variable than others, it is necessary to have more grades for some products than for others. For example, there are eight grades for beef, but only three for chicken. Although quality in general refers to the usefulness, desirability, and value of a product—its marketability—the precise definition of quality depends on the commodity. USDA's standards define the requirements of each grade of a product.

USDA grades are used most often at the wholesale level—but in many cases they carry through to the consumer. Grades can be found most often on beef, lamb, turkey, chicken, butter, and eggs. Some canned and frozen fruits and vegetables also carry the USDA grade shield.

Grade labeling is not required by law, even though the product has been officially graded or inspected. However, for most commodities, if an official grade name or grade shield has been used, the product must have been officially graded or inspected. The only exception is for fresh fruits, vegetables, and a few other products, such as honey, where the practice of grade labeling without official inspection has existed through the years. Even with these products, it is illegal to use an official grade falsely.

The Difference Between Grading and Meat and Poultry Inspection

The term "inspection" has, through long usage, come to mean different things for different commodities. For fruits and vegetables, as well as for grain, it means, essentially, inspection for grade.

Although most farm products are not required by law to be graded, or, in the case of fruits, vegetables, and grain, to be "inspected for grade," USDA administers an inspection program for meat and poultry which is mandatory.

Federal inspection is required for meat and poultry sold across State lines and for meat and poultry going into intrastate commerce in those States that do not have a State inspection program equal to the Federal program.

This inspection program is for wholesomeness and proper labeling. To pass inspection, meat and poultry products must be from healthy birds or animals which were handled or processed under strict sanitary conditions. The products must not be adulterated, and must be truthfully packaged and labeled.

Remember: USDA meat and poultry inspection is for wholesomeness; USDA grading, or "inspection for grade," is for quality. Meat and poultry inspection is mandatory; grading, and inspection for grade, is voluntary. All meat and poultry must be inspected before being graded.

Other Federal Food Standards

In addition to USDA grade standards for quality, other food standards are set by USDA and other Federal agencies. Some are voluntary; others are regulatory.

The U.S. Department of Commerce's National Marine and Fisheries Service has a voluntary program which provides grade standards and grading services for fishery products similar to those provided by USDA for other foods.

Regulatory standards are set by both USDA and the Food and Drug Administration of the U.S. Department of Health, Education, and Welfare. USDA has established minimum meat content requirements for federally inspected meat and poultry products, and complete standards of identity for three products: chopped ham, corned beef hash, and oleomargarine.

FDA also has standards of identity, which, like USDA's, establish what a given food product is—for example, what a food must be to be labeled "preserves." Both FDA and USDA standards of identity provide for the use of optional ingredients in addition to the mandatory ingredients that make a product what it is.

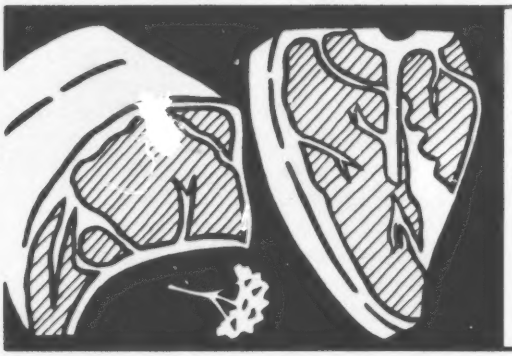
Minimum standards of quality have been set by FDA for a number of canned fruits and vegetables to supplement standards of identity. These are regulatory minimum standards for such factors as tenderness, color, and freedom from defects. Foods not meeting these standards must be distinctively labeled.

(When USDA grade standards are developed for a product for which FDA has a standard of minimum quality, the requirements for the lowest grade level USDA sets are at least as high as the FDA minimum. USDA grade standards for canned tomatoes, for example, are U.S. Grades A, B, and C. U.S. Grade C is comparable to FDA's standard of minimum quality.)

Another regulatory type of FDA standard is the standard of fill of container which tells a packer how full a container must be to avoid deception.

Under the Public Health Service Act, FDA also develops sanitation standards, which are recommended for adoption by State and local governments, for prevention of foodborne diseases.

The most familiar and widely adopted standards deal with production, processing, and distribution of "Grade A" milk. In contrast to USDA quality grade standards for food, the standard for Grade A milk is largely a standard of wholesomeness. The Grade A designation on fresh milk means that it has met State or local requirements, which usually follow provisions of FDA model ordinances.



Lesson Aid I--Meat

OBJECTIVES

From this lesson:

1. Students should learn what USDA grades mean on beef and lamb, and how they can help the student get the right type of meat for a particular use.
2. Students should learn about cuts of beef, lamb, and pork; how to cook them; which yield more; which to use for different recipes and different occasions; which to use for maximum flavor; and which to use for maximum economy.

MATERIALS TO USE

Pamphlets

How to Buy Beef Roasts
How to Buy Beef Steaks
How to Buy Lamb
How to Buy Meat for Your Freezer

Flyers

(from PA-976—How to Buy Food)
How to Buy Beef
How to Buy Chuck Roasts and Steaks
How to Buy Ground Beef
How to Buy Ham
How to Buy Lamb
How to Buy Pork
How to Buy Porterhouse, T-Bone, and Club Steaks
How to Buy Rib Roasts
How to Buy Round Steaks and Roasts
How to Buy Rump and Sirloin Tip Roasts
How to Buy Sirloin Steaks
How to Cook Beef

(separate one-page flyers)
How to Buy Bacon

Quizzes

Baa-affled About Lamb? (p. 11)
Befuddled About Beef Roasts? (p. 13)
Bone Up on Steak (p. 15)
Cold Facts About Freezing Meat (p. 17)

Visual Aids

"A Mark of Quality"—This 13½-minute color film explains the meaning of grades of beef and how the grading system works. Purchase price $75.

"How to Buy Beef"—(C-123) Available either as a slide set ($13) or a filmstrip ($5.50), this set tells how to buy beef by grade and cut. Audio cassette available with both slides and filmstrip. $3.

Tables

The Cost of Protein Foods (p. 19 & p. 52)

Supplementary Material

Beef and Veal in Family Meals—A Guide for Consumers (G-118) 45¢. This pamphlet gives buying, storing, and cooking tips for beef and veal. Recipes are included.

Hamburger Questions and Answers.* This flyer answers questions on labeling and content of ground beef and handling at home.

Lamb in Family Meals—A Guide for Consumers (G-124) 30¢. This pamphlet gives buying, storing, and cooking tips for lamb. Recipes are included.

Pork in Family Meals—A Guide for Consumers (G-160) 35¢. This pamphlet gives buying, storing, and cooking tips for pork. Recipes are included.

Quick Tips on Meat & Poultry Care and Labels.* This flyer tells how to keep meat and poultry products clean and safe and explains labeling requirements.

Quick Tips on Meat & Poultry Storage & Cookery.* This flyer gives temperatures for cooking and storage and other tips on food safety.

Summertime Foods Questions and Answers.* This flyer gives special information on keeping meat and poultry safe for barbecues and picnics.

* Available from Information Division, APHIS, USDA, Washington, D.C. 20250.

SUGGESTIONS FOR TEACHING

1. Bring, for example, two steaks that are the same cut, one USDA Prime, the other USDA Choice or Good, to illustrate the difference in grades. (Particularly point out degrees of marbling.) If the steaks can be cooked, students can compare eating quality. The wider the difference in grade, the more noticeable the difference will be.

2. Prompt students to use their knowledge of meat grades and cuts when shopping. Organize a visit to the supermarket to examine different cuts and grades. You might arrange with the supermarket to have the butcher give a cutting demonstration.

3. Two or more lesson periods could be devoted to this topic, since it is so extensive and since meat accounts for so much of the food dollar.

4. Reproduce the "Cost of Protein Foods" tables (p. 19 and p. 52) to hand out to students. Discuss which protein foods cost more or less, and which provide the best buys in protein.

GLOSSARY

You may want to reproduce this glossary for your students. It can serve as a useful reference both during the lesson series and afterwards.

General terms

Braise—To cook meat in a small amount of liquid at a low temperature, covered tightly, either on the stove top or in the oven. Pot roasts and Swiss steak are cooked by braising.

Broil—To cook meat in oven broiler, with oven regulator set at broil, and with no added liquid.

Choice—This USDA quality grade for beef and lamb, the second highest, is the grade most widely sold at retail stores. Choice grade meats are tender, juicy, and flavorful.

Commercial—This USDA quality grade is the highest grade of beef from mature animals. Beef of this grade is not tender and is usually not sold in retail stores.

Cull—The lowest quality grade for lamb—seldom if ever sold as retail cuts.

Good—This USDA quality grade of beef and lamb is not as tender, juicy, and flavorful as the higher grades (Prime and Choice), but is a good buy because it is lean but still fairly tender.

Inspection—All meat must be inspected for wholesomeness. It may bear a USDA inspection stamp (like the one shown here) or a State inspection stamp. The mark is placed on wholesale cuts, so you may not see it in retail stores.

Marbling—Flecks of fat within the lean of a cut of meat. Enhances juiciness and flavor.

Pan broil—To cook meat slowly in a lightly greased frying pan or griddle, turning occasionally. Meat is cooked uncovered without added liquid, and fat is removed as it accumulates.

Panfry—To cook meat in preheated frying pan in small amount of fat. Meat is cooked uncovered at moderate temperature.

Prime—USDA's highest quality grade for beef and lamb. Meat in this grade is very tender, juicy, and flavorful.

Quarter—Half of a side of beef—either fore or hind quarter.

Retail cuts—These are the cuts of meat that you find in retail stores, such as sirloin steaks, lamb chops, spareribs, etc.

Roast—(also called dry roasting or oven roasting) To cook meat uncovered, without adding water, in shallow baking pan in oven.

Side—Half a carcass, including fore and hind quarters.

Standard—The fourth quality grade for beef—it has a high proportion of lean meat and very little fat. It's fairly tender, but usually mild in flavor. This grade is in few retail stores.

Utility—A lower quality grade of beef or lamb—seldom, if ever, sold as retail cuts.

Wholesale cuts—These cuts are usually bought from locker and freezer provisioners and others who sell meat wholesale. A beef short loin and a leg of lamb are examples.

Yield grades—These USDA grades measure the percentage of lean meat a carcass contains. They are designated Yield Grade 1 through Yield Grade 5. Yield Grade 1 denotes the highest yield.

Beef cuts

Bottom round—One of three cuts from beef round steak. (The other two are top round and eye-of-round.) It is not as tender as top round and should be cooked with moist heat. May also be called outside round.

Brisket—This is a less tender cut of beef which must be pot roasted or stewed. It is often cured and sold as corned beef.

Chuck arm—This cut of beef can be identified by the round arm bone. It makes an excellent pot roast and is also sold as steak in some stores; it's a less tender cut, best braised or used as Swiss steak. Also called arm roast or round bone chuck.

Chuck blade—A cut of beef which is sold either as steak or as a roast. It's an economical cut with several muscles of varying tenderness.

Club steak—This beef steak is cut from the short loin, like the porterhouse and T-bone, but it has no tenderloin portion. It's a small steak, good for individual servings. Rib steaks are often sold as club steaks.

Eye-of-round—A cut from the beef round, not as tender as top round. Sometimes sold as part of the bottom round.

Flank steak—A boneless beef steak with very little fat. Usually considered a less tender cut which should be cooked with moist heat. However, it is often used for "London broil," in which case it is broiled and sliced very thin for serving.

Porterhouse—A steak from the short loin—contains loin and tenderloin sections. The tenderloin section is larger than in a T-bone steak. Often higher priced than other bone-in steaks.

Ribeye roast—The meaty, boneless heart of the beef standing rib roast. It has an excellent flavor and is superbly tender in the higher grades.

Ribeye steak—Steak cut from the same area as the ribeye roast. Sometimes called Delmonico steak.

Rib roast—This beef roast is unexcelled for tenderness and flavor. It's easy to prepare, carve, and serve. It is sold bone-in or boneless. Bone-in, it is called a standing rib roast.

Rump roast—This is a very flavorful beef cut from the wholesale round; less tender than the rib roast. It contains considerable bone, but may be bought boned and rolled.

Shanks—Beef shanks are generally sold cut-up for stew meat or ground.

Shoulder roast—(or shoulder clod) This is a boneless meaty beef roast from the outside of the chuck. It has a well developed flavor and no bone.

Sirloin—A large beef steak, great broiled for family or party fare. Or a large roast suitable for dry roasting.

Sirloin tip—(or round tip) This is a boneless beef roast or steak, cut from the wholesale round, less tender than a regular sirloin.

T-bone—This beef steak is similar to the porterhouse steak except that it has a smaller amount of tenderloin.

Tenderloin—(Filet mignon) This is the most tender of all beef steaks. It has no bone and very little fat.

Top loin—This beef steak, sometimes called New York strip or Kansas City steak, is sold with the bone in or boneless. It is the same as the large muscle in the porterhouse and T-bone steaks. When cut from the front end of the loin, it is often called a club steak.

Top round—One of three cuts from beef round steak (the others are bottom round and eye-of-round). This is the tenderest of the three muscles. Also called inside round.

Lamb cuts

Blade chops—(also arm shoulder chops) These cuts from the lamb shoulder roast are good for broiling, pan broiling, or panfrying.

Breast—The lamb breast, which contains the rib bones and breast bone, is economical. Often this cut is boned and rolled or boned for stuffing. A less tender cut.

Crown roast—A circular lamb roast from the rib (or rack) area formed to resemble a crown.

English chops—(double chops) A double loin lamb chop.

Lamb cubes for kebabs—(shish kebabs) Cubes of boneless lamb usually cut from the shoulder or leg and skewered.

Leg of lamb, American-style—With this cut, the shank bone is removed and the shank meat is folded back into a pocket on the inside.

Leg of lamb, French-style—This cut of lamb has a small amount of meat trimmed from the end of the shank, and the exposed bone can be decorated after roasting.

Leg steak—Lean meaty slices of lamb cut from the center area of the leg. Identifiable by the round leg bone. Also called lamb cutlet.

Loin chop—A lamb chop identifiable by the T-bone.

Rib chops—Cut from the lamb rib, these chops are delicious broiled, pan broiled, or panfried.

Riblets—Economy lamb cuts made from the breast by cutting between the rib bones.

Rib roast—(or rack of lamb) Usually a restaurant item for two, cut from the rib.

Saratoga chops—Boneless lamb chops from the inside shoulder muscles.

Shank half—The lower half of a leg of lamb. The upper half is called the sirloin half.

Shanks—An economical cut of lamb—the lower part of the fore or hind leg—best prepared by simmering in liquid or braising.

Shoulder roast—The square cut lamb shoulder roast (bone-in) is identified by the arm and blade bones and is considered an economical cut of lamb. The boned and rolled shoulder roast is convenient to serve and is sold boned, rolled, and tied. Both roasts are suitable for oven roasting or braising.

Sirloin chops—(or sirloin steaks) Cut from the sirloin section of the lamb leg, these chops can be broiled, pan broiled, or panfried.

Sirloin half—(or butt half) The upper half of a leg of lamb. A delicious oven roast.

Baa-affled About Lamb?

International favorite, gourmet's delight, hearty family meal—lamb is all of these and more! It can suit your style—whether it be leg of lamb, shish kebabs, or lamb stew. Many homemakers pass lamb by when planning meals. If you're one of them, now is the time to take a good look at the possibilities for lamb. Check up on your lamb knowledge; then head for the supermarket. And get ready for compliments from even your fussiest eaters.

MULTIPLE CHOICE

1. Lamb is from young animals, so it is
   a. not very nutritious.
   b. tender and delicately flavored.
   c. not graded by the U.S. Department of Agriculture.
2. You can judge the quality of lamb by
   a. pinching it.
   b. the price per pound.
   c. using the USDA quality grades.
   d. none of the above.
3. Lamb is inspected by State or Federal inspectors
   a. because inspection is required by law.
   b. to make sure that it is clean, wholesome, and truthfully labeled.
   c. both of the above.
4. USDA Prime lamb is the highest quality but USDA Choice is the grade most commonly found in the supermarket.
   a. True.
   b. False.
5. USDA Choice lamb is
   a. the same quality as USDA Prime.
   b. higher in quality than USDA Prime.
   c. tender, juicy, and flavorful.
   d. best when cooked in moist heat.
6. Most cuts of lamb (in both USDA Prime and Choice grades) are tender.
   a. True.
   b. False.
7. The less tender lamb cuts—breast, riblets, neck, and shanks—
   a. are not flavorful.
   b. can be braised slowly to make tender dishes.
   c. are low in quality.
   d. are poor buys.
8. French-style leg of lamb
   a. has the shank bone removed.
   b. has a small amount of meat trimmed from the shank bone.
   c. is the same as American leg of lamb.
   d. is not sold in the United States.
9. Lamb roasts (bone-in) usually should be cooked
   a. 20 minutes per pound.
   b. until the internal temperature is 250 degrees F.
   c. at an oven temperature of 300–325 degrees F. until internal temperature is 175–180 degrees F.
   d. two days before serving.
10. Shish kebabs are
    a. cubes of boneless lamb.
    b. usually cut from the shoulder or leg.
    c. good skewered, marinated, then broiled.
    d. all of the above.

ANSWERS

1. (b) Tender and delicately flavored. Available in a large variety of cuts, lamb is naturally delicate, tasty, and tender because it's from animals usually less than one year old. Lamb is also quite nutritious. A serving of lamb provides a high amount of protein and significant quantities of vitamin B–1, vitamin B–2, iron, and calcium. Lamb is graded for quality by highly trained graders under USDA's Agricultural Marketing Service grading program. Like other meat grading, lamb grading is a voluntary service provided to meat packers and to others who request it and pay for it.

2. (c) Using the USDA quality grades. Each lamb grade is a measure of a distinct quality level. When a lamb carcass is graded, a purple, shield-shaped grade mark containing the letters USDA and the grade name—such as Prime or Choice—is applied. At least one grade mark should appear on most lamb cuts that have been officially graded.

3. (c) Both of the above. All meat must be inspected for wholesomeness by State or Federal inspectors. Learn to recognize both the inspection mark—a circle—and the quality grade mark—a shield. Remember, they mean different things. The inspection mark tells you that the meat is clean and wholesome. The grade mark tells you the quality of the meat.

4. (a) True. USDA Prime is the highest of the five lamb quality grades, followed by Choice, Good, Utility, and Cull. The two lower grades are seldom if ever sold as retail cuts. USDA Choice is the grade most widely sold at retail.

5. (c) Tender, juicy, and flavorful. Choice grade lamb has slightly less marbling—flecks of fat in the lean—than Prime, but still is very high quality. Like Prime lamb, Choice lamb chops and roasts are very tender, juicy, and flavorful and are suited to dry-heat cooking.

6. (a) True. Most lamb cuts—including shoulder cuts—are tender and can be oven roasted, broiled, or pan-broiled. Lamb's tenderness is a big reason for its popularity and versatility.

7. (b) Can be braised slowly to make tender dishes. Even the breast, riblets, neck, or shank make excellent—and tender—lamb dishes when they are braised slowly. These cuts are not only very tasty but are often very good buys.

8. (b) Has a small amount of meat trimmed from the shank bone. French-style leg has a small amount of meat trimmed from the shank, so the exposed bone can be decorated after roasting. The American-style leg differs from the French-style in that the shank bone has been removed and the shank meat folded back into a pocket on the inside and fastened with skewers.

9. (c) At an oven temperature of 300–325 degrees F. until internal temperature is 175–180 degrees F.

10. (d) All of the above. Shish kebabs are cubes of boneless lamb usually cut from the shoulder or leg and skewered. A favorite way to prepare them is to marinate the cubes for several hours; then put them on skewers to charcoal broil or oven broil.

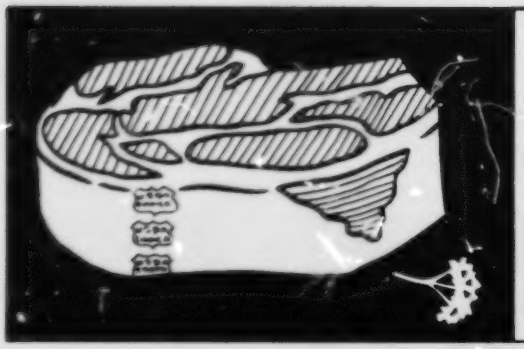
SCORING

Give yourself five points for each right answer.

40–50 Excellent. Lamb is your style!

30–40 Good. But put the finishing touches on your lamb knowledge. Read "How to Buy Lamb."

Below 30 Fair. You're baa-affled.



Befuddled About Beef Roasts?

Whether you want a meat entree fit for a gourmet or a hearty he-man meal, beef roasts can fill the bill. These nutritious meats in all cuts and quality grades provide good eating if properly prepared. Use dry heat for the more tender cuts and the higher grades and use moist heat for the less tender cuts and the lower grades. You may already know that, but just how much do you know about beef roasts? Try this quiz and find out.

MULTIPLE CHOICE

1. Beef varies in quality more than other kinds of meat (such as lamb or pork).
   a. Yes.
   b. No.
2. The USDA grade mark for meat is a
   a. circle.
   b. shield.
   c. triangle.
3. The USDA beef grade most widely sold at retail is
   a. USDA Prime.
   b. USDA Choice.
   c. USDA Good.
   d. USDA Standard.
   e. USDA Commercial.
4. "Marbling" in beef means
   a. a wider, thicker fat band.
   b. meat nearest the bone.
   c. flecks of fat within the lean.
   d. brighter red color.
   e. none of the above.
5. The more tender cuts of beef are generally taken from
   a. the less-used muscles along the back of the animal.
   b. the rib section.
   c. the loin section.
   d. all of the above.
   e. none of the above.
6. Names given beef cuts sometimes vary from store to store and in different parts of the country.
   a. Yes.
   b. No.
7. USDA graders, highly trained in determining quality, grade
   a. whole carcasses.
   b. wholesale cuts.
   c. retail cuts.
   d. both a and b.
   e. both b and c.
8. All meat is graded.
   a. Yes.
   b. No.
9. Most often cured and sold as corned beef is the
   a. shoulder clod.
   b. shoulder arm.
   c. brisket.
   d. sirloin tip.
   e. heel of round.
10. You're planning an extra-special dinner. Which roast would you choose to serve?
   a. USDA Prime rump roast.
   b. USDA Prime sirloin tip.
   c. USDA Prime blade chuck.
   d. USDA Prime rib roast.
11. Less tender cuts of beef are a waste of money.
   a. Yes.
   b. No.
12. "Prime Rib" listed on a restaurant menu is always USDA Prime in quality.
   a. Yes.
   b. No.

ANSWERS

1. (a) Yes. But you don't have to learn to judge beef quality for yourself. USDA grades are a reliable guide to meat quality—its tenderness, juiciness, and flavor. The grades are based on nationally uniform Federal standards of quality and are applied by USDA graders. Therefore, a USDA Choice rib roast, for example, will provide the same good eating no matter where or when you buy it.

2. (b) Shield. The shield-shaped grade mark containing the letters USDA and the name of the grade, such as Prime, Choice, etc., can be found on most cuts of graded meat. A round mark is used by USDA to show that the meat has passed inspection for wholesomeness. State-inspected meat may bear a different inspection mark, depending on the State.

3. (b) USDA Choice. Each USDA beef grade is a measure of a distinct level of quality. Choice grade is produced in the greatest volume and many retailers have found that this level of quality pleases most of their customers.

4. (c) Flecks of fat within the lean. Marbling enhances both flavor and juiciness. The degree of marbling is one of the quality factors considered by USDA graders.

5. (d) All of the above. Cuts from the less-used muscles along the back of the animal—the rib and loin sections—will always be more tender than those from the active muscles such as the shoulder (chuck), flank, and round. The most tender cuts make up only a small portion of the beef carcass—and they are in greatest demand. Therefore, they command a higher price than other cuts.

6. (a) Yes. The terms used do not always mean the same thing. For example, a "cross cut rib roast" may be cut from the blade portion of the chuck in some parts of the country—in others it may be from the shoulder arm portion of the chuck. It is not the cut from the rib roast, as you might assume from the name. Your best guide is standard terminology for cuts, such as blade chuck, rib roast, rump roast, as used by many stores, and as described in "How to Buy Beef Roasts."

7. (d) Both a and b. When the carcass or wholesale cut is graded, a purple shield-shaped mark containing the letters USDA and the grade name is applied with a roller. Then when the carcass or wholesale cut is divided into retail cuts, one or more of the grade marks will appear on most of these cuts.

8. (b) No. Meat grading is a voluntary service provided by AMS to meat packers and others who request it and pay a fee for the service. So not all meat is graded although a large percentage of it is.

9. (c) Brisket. Definitely a less tender cut, brisket should be cooked with moist heat in all grades.

10. (d) USDA Prime rib roast. Unexcelled for tenderness and flavor, easy to prepare, carve, and serve—the rib roast is the favorite for company fare.

11. (b) No. Less tender cuts are often a good buy. Such cuts include shoulder arm chuck roasts, bottom round and eye-of-round roasts, and brisket. Cook these with moist heat in any grade. The most tender cuts are no more nutritious than less tender cuts.

12. (b) No. Prime rib often is used to refer to the primal cut, and it means it is taken from the rib section of the carcass. Thus the term "prime rib" is a name frequently used to identify the roast and not necessarily a reference to quality. Actually, "prime rib roast" served in restaurants could be any quality grade. If you buy a rib roast marked USDA Prime, you can be assured of the highest quality.

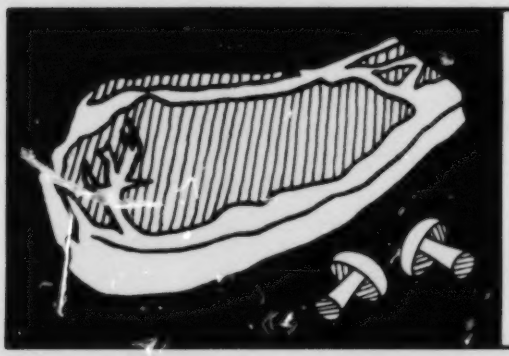
SCORING

Give yourself five points for each correct answer.

50–60 Excellent. You really know your beef roasts.

40–50 Good. You know the beef you buy pretty well, but you could still profit from "How to Buy Beef Roasts."

Below 40 Fair. To balance your food-buying budget better, you would find it valuable to study "How to Buy Beef Roasts."



Bone Up on Steak

Steak! Most people love it. But it takes some know-how to come up with the broiled-to-perfection cut of meat most of us envision when we hear the word "steak."

There are many different types of steak, and a wide range of quality. How much do you really know about this all-American favorite? Try this quiz and find out.

MULTIPLE CHOICE

1. The USDA grade mark for meat is a
   a. circle.
   b. shield.
   c. triangle.
2. The USDA grade mark on the steak you buy is assurance of
   a. wholesomeness.
   b. quality.
   c. both.
   d. neither.
3. USDA Prime T-bone steak compared to USDA Good T-bone steak
   a. is more tender, juicy, and flavorful.
   b. has more protein.
   c. can be broiled, whereas USDA Good T-bone cannot be successfully broiled.
4. Porterhouse, T-bone, and top loin (club) steaks are
   a. all tender steaks.
   b. all from the short loin.
   c. all good for broiling in the USDA Prime, Choice, and Good grades.
   d. all of these.
   e. none of these.
5. You want to serve your company the best. The steak you would choose is
   a. USDA Prime round.
   b. USDA Prime sirloin.
   c. USDA Prime porterhouse.
   d. USDA Prime T-bone.
6. A flank steak, a rib steak, and a shoulder arm steak differ in tenderness because
   a. they are different grades.
   b. they come from different parts of the carcass.
   c. they differ in protein content.
7. A "first-cut" chuck blade is less tender than other chuck blade steaks.
   a. True.
   b. False.
8. For best eating, a chuck arm steak should be broiled.
   a. True.
   b. False.
9. Round steak is often divided into three portions, the top, bottom, and eye-of-round. The most tender of these three portions is
   a. top.
   b. bottom.
   c. eye.
10. "London Broil" on a restaurant menu usually means a
   a. chuck steak.
   b. sirloin steak.
   c. club steak.
   d. flank steak.
11. Steaks sold under names such as Western, California, Cheyenne, petite, butter, finger, breakfast, and his 'n' hers are usually
   a. very tender.
   b. loin steaks.
   c. cut from the chuck.
12. You love medium rare steak and have decided to broil one tonight. Being a last minute shopper, you find only two steaks left in the case—one ¾ of an inch thick and the other 1¼ inches thick. It is best to choose
   a. ¾ inch.
   b. 1¼ inches.

ANSWERS

1. (b) Shield. The shield-shaped grade mark containing the letters "USDA" and the name of the grade, such as Prime, Choice, etc., can be found on most cuts of graded meat. A round mark is used by USDA to show that meat has passed inspection for wholesomeness.

2. (b) Quality, strictly speaking. But also count yourself right if you answered (c) both, because beef must first pass inspection for wholesomeness before it can be USDA graded.

3. (a) USDA Prime is the ultimate in tenderness, juiciness, and flavor, but grade makes little difference in protein content. Because a T-bone is a relatively tender cut, however, it may be broiled in Choice and Good grades as well as Prime.

4. (d) All of these. Give yourself half credit if you picked (a), (b), or (c). Porterhouse, T-bone, and club steaks are all cut from the short loin, one of the most tender portions of a beef carcass. They are excellent for broiling in any of the top three grades, USDA Prime, Choice, or Good.

5. (c) USDA Prime porterhouse—often considered the best steak of all. The T-bone is very similar but has less tenderloin. Sirloin is a more variable steak, containing several muscles, and round steak is less tender than the other steaks named.

6. (b) They come from different parts of the carcass. As the names imply, the rib steak comes from the rib, the same part of the carcass from which rib roasts are cut, one of the most tender portions; the flank steak is cut from the flank, one of the least tender parts; and the shoulder arm steak comes from the "arm" portion of the chuck, a definitely less-tender portion of the beef carcass. There is very little difference in protein content of the lean of any of the cuts of beef. Beef is graded in carcass form; therefore, any cut from a USDA Choice beef carcass, for example, will also carry the USDA Choice grade, whether it is one of the most or the least tender cuts from that carcass. But the higher the grade of any particular cut, such as a rib steak, the greater the degree of tenderness, juiciness, and flavor it will tend to have in relation to the same cut of lower grade. So you have to know the cut, as well as the grade, to make sure you get the kind of steak you want.

7. (b) False. The "first-cut" from the blade section of the chuck is the one next to the rib roast—and it contains a larger portion of that same rib-eye muscle than other blade cuts. This round muscle, adjacent to the rib bone, can be cut out and broiled for a delicious "Delmonico" steak if the cut you buy is graded USDA Prime, Choice, or Good.

8. (b) False. The chuck arm comes from one of the less tender portions of the beef carcass, so even in the higher grades this cut is better cooked with moist heat—used as Swiss steak or braised.

9. (a) Top. This portion can be broiled successfully if it is USDA Prime or Choice. Bottom round is better cooked with moist heat, regardless of grade. Eye of round is also a less tender cut, but if sliced thin, USDA Prime and Choice eye-of-round can be pan-broiled.

10. (d) There's no guarantee, but in most cases the term "London Broil" is used for flank steak. This is definitely a less tender cut but it can be marinated to help tenderize and flavor it, then broiled and sliced very thin on the diagonal, which also helps to make it "eat better."

11. (c) These are **usually** names employed for steaks cut from the chuck. But there is really no way to tell. The best way to get the kind of steak you want is to shop at a store that uses the standard terminology for its meat cuts, such as blade chuck, arm chuck, etc.

12. (b) 1¼ inches. For best results in broiling, a steak should be at least an inch thick—especially if you like your beef medium rare. With a thin steak, it would be very difficult to avoid getting it well done.

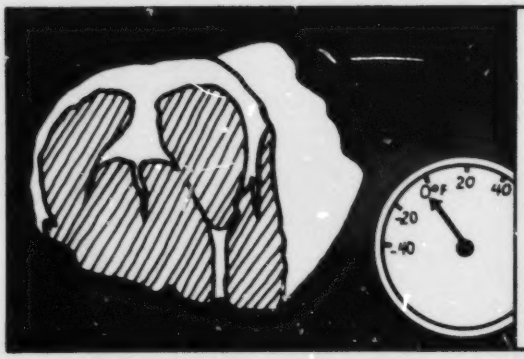
SCORING

Give yourself five points for each correct answer.

50–60 Excellent. You must come from a family of steak eaters. You really know the beef you buy.

40–50 Good. You know quite a bit about beef but you still might profit from "How to Buy Beef Steaks."

Below 40 Fair. Since buying meat eats up close to a third of every food dollar, you would find it very valuable to study "How to Buy Beef Steaks."



Cold Facts About Freezing Meat

Question. Buying meat in quantity
- a. is always a money-saver.
- b. is never a money-saver.
- c. can be a money-saver.

Answer. c. Whether or not you save money by buying meat in quantity depends upon many factors. An important one is your basic knowledge about grades and percentage yields of different cuts.

Did you check "c"? Good. This probably means that you know how complicated meat buying can be. However, you'll enjoy sharpening your knowledge with this quiz.

Check "a" or "b"? Then you'd really better take this quiz—quick!

MULTIPLE CHOICE

1. To buy meat for the freezer means to buy
   - a. by the carcass only (whole carcass, side, or quarter).
   - b. wholesale cuts only (loin, round, chuck, etc.).
   - c. retail cuts only.
   - d. any of these.

2. You are thinking of buying a 300-pound side of beef. From that side you can expect about
   - a. 150 pounds of usable meat cuts.
   - b. 300 pounds of usable meat cuts.
   - c. 225 pounds of usable meat cuts.

3. This stamp on the meat you're buying means that it was Federally inspected for
   - a. fat content.
   - b. wholesomeness.
   - c. quality.

4. This shield-shaped USDA grade mark assures
   - a. quality.
   - b. wholesomeness.

5. The three USDA meat grades that are most often found on retail cuts are
   - a. USDA Standard, Commercial, and Utility.
   - b. USDA Utility, Cutter, and Canner.
   - c. USDA Prime, Choice, and Good.

6. Terms such as "Fancy," "Supreme," "steak package," and "beef bundle" are examples of
   - a. usually good buys, high-quality meat available at bargain prices.
   - b. pseudo-grade names for meat and advertised "deals" that should signal the consumer to beware.

7. You have a large family and want the greatest amount of usable meat for the least money. If you were buying a quarter of beef, your best buy would probably be
   - a. a forequarter.
   - b. a hindquarter.

8. The yield grade, which is different from the quality grade, measures
   - a. only the amount of fat on a carcass.
   - b. the amount of usable meat available from a carcass.
   - c. the amount of bone in a carcass.

9. You can expect about a 72-percent yield of retail cuts from a Yield Grade_____beef carcass.
   - a. 1
   - b. 3
   - c. 5

10. Grades for pork are primarily measures of yield, rather than quality.
   - a. True.
   - b. False.

11. Since lamb is produced from_____animals, most cuts can be cooked with_____.
   - a. old—moist heat.
   - b. young—dry heat (oven roasted or broiled).
   - c. old—dry heat.

12. At 0° F., properly wrapped beef and lamb steaks and roasts can be stored for _____ with little or no quality loss.
   - a. 1–3 months.
   - b. 3–4 months.
   - c. 4–8 months.
   - d. 8–12 months.

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ANSWERS

1. (d) Any of these. The choice is yours, based on such factors as the amount of freezer space available and amount of money you wish to spend at one time.

2. (c) 225 pounds. A 25-percent "cutting loss" is about average. A good rule of thumb for carcass beef is: 25 percent steaks, 25 percent roasts, 25 percent ground beef and stew meat, and 25 percent fat and bone.

3. (b) Wholesomeness. The phrasing in this round purple stamp means "Inspected and Passed." It is assurance that the meat has been checked by USDA inspectors and found to be safe for use as food.

4. (a) Quality, strictly speaking. But you're also right if you checked (c) quality and wholesomeness, because meat must first pass inspection for wholesomeness before it can be USDA graded.

5. (c) USDA Prime, Choice, and Good. These are the top three USDA quality grades for beef. Choice grade beef is produced in the greatest volume and is most widely available. Good grade beef is also available in some areas. The lower grades—Standard, Commercial, Utility, and Canner—are rarely, if ever, sold at retail but are used for hamburger and processed products.

Prime and Choice grade meat is usually more tender, juicy, and flavorful than that in lower grades. When buying in quantity, consumers are well advised to buy only meat of the higher quality grades.

6. (b) Pseudo-grade names that should signal the consumer to beware. Federally graded meat carries the term "USDA" along with the actual grade, such as "USDA Choice," within the shield-shaped grade mark that is stamped on the carcass.

The official USDA grade names, such as Prime, Choice, and Good, are based on nationally available standards of quality that are applied uniformly at all times. This may or may not be the case with meat labeled with other terms, such as "Fancy."

Also, beware of "deals" like a "steak package" because often the dealer alone knows which cuts are included.

7. (a) A forequarter. The total yield of meat from a forequarter is greater than that of the hindquarter and it usually costs 15–20 cents less per pound.

Except for the delicious rib roast, though, the forequarter contains mostly the less tender cuts such as chuck roasts, short ribs, brisket and other meat best suited for grinding and stewing.

Hindquarters produce most of the more tender steaks and roasts.

According to the booklet, "How to Buy Meat for Your Freezer," the forequarter from a 300-pound side of beef yields about 118 pounds of usable cuts (76%) and the hindquarter about 100 pounds (70%).

8. (b) Yield grades are a measure of the amount of usable meat in a carcass. A primary factor affecting the yield of meat is the amount of fat that is trimmed off in making retail cuts. So yield grades are not important to you if you buy only retail cuts that have been trimmed of fat.

If you buy wholesale cuts, or quarters or sides, though, the yield grade can be very important. For example, a 300-pound side of Yield Grade 2 beef is worth about $15.00 more—five cents per pound—than a 300-pound Yield Grade 3 side.

There are five yield grades, with Yield Grade 1 indicating the highest yield and Yield Grade 5 the lowest.

9. (b) 3. The expected yield of retail cuts from a Yield Grade 3 beef carcass is 70.5 to 75.1 percent.

10. (a) True. The USDA grades for pork carcasses recognize only two quality levels—acceptable (meaning good quality lean meat) and unacceptable. The grades of acceptable pork range from U.S. No. 1 to U.S. No. 4 and reflect differences in the yield of the four major lean cuts as a percentage of the carcass weight.

There is very little Federal grading of pork—and no Federally graded pork is identified as such in retail stores.

11. (b) Lamb is produced from animals less than a year old. Therefore, most cuts of USDA Prime or Choice lamb are tender and can be oven roasted or broiled.

12. (d) Beef and lamb roasts, steaks, and chops, can be kept safely frozen for 8–12 months; fresh pork for 4–8 months; ground beef and lamb for 3–4 months; and pork sausage for 1–3 months.

SCORING

Give yourself five points for each correct answer.

50–60 Excellent. You are an aware, skilled buyer of quantity meat.

40–50 Good. You're quite adept at purchasing meat but you might brush up on the fine points. Why not let "How to Buy Meat for Your Freezer" help you?

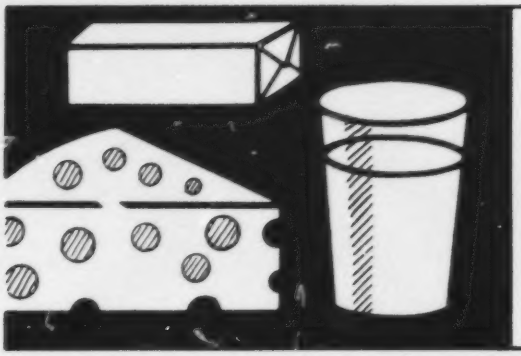
30–40 Fair. You need more study to get the most in quality and economy for your money.

COST OF PROTEIN FOODS

Table 1. Cost of 3 ounces (an average serving) of cooked lean from meat, poultry, or fish at July 1974 prices.

Food	Retail price per pound [1]	Part of pound for 3 ounces of cooked lean	Cost of 3 ounces of cooked lean
Hamburger	$0.90	.26	$0.24
Beef liver	.91	.27	.24
Chicken, whole, ready-to-cook	.52	.48	.25
Chicken breasts	.75	.35	.26
Turkey, ready-to-cook	.66	.40	.26
Ocean perch, fillet, frozen	1.08	.29	.31
Ham, whole	.90	.35	.31
Pork, picnic	.72	.46	.33
Ham, canned	1.52	.25	.38
Chuck roast of beef, bone in	.95	.45	.43
Haddock, fillet, frozen	1.50	.29	.43
Pork loin roast	1.13	.50	.57
Rump roast of beef, boned	1.70	.34	.58
Round beefsteak	1.74	.34	.59
Rib roast of beef	1.52	.45	.68
Pork chops, center cut	1.54	.45	.69
Sirloin beefsteak	1.75	.43	.75
Veal cutlets	3.45	.25	.86
Lamb chops, loin	2.26	.46	1.04
Porterhouse beefsteak	2.06	.52	1.07

[1] Average retail prices in U.S. cities, Bureau of Labor Statistics, U.S. Department of Labor.
Table reprinted from: Family Economics Review, Fall 1974, Agricultural Research Service, USDA.



Lesson Aid II--
Dairy Products

OBJECTIVES

From this lesson:

1. Students should learn what USDA grades mean on dairy products.

2. Students should learn about the variety of dairy products available, all of which can help provide the nutritional values of milk.

MATERIALS TO USE

Pamphlets

How to Buy Cheese
How to Buy Dairy Products

Flyers

(from PA–976—How to Buy Food)
How to Buy Cheese
How to Buy Dairy Products

Quizzes

Check Up on Your Cheeses (p. 25)
Do You Know Your Dairy Products (p. 23)

Visual Aids

"How to Buy Cheese"—Slide set. Available soon.

Supplementary Materials

Cheese in Family Meals—A Guide for Consumers (G–112) 35¢. This pamphlet gives buying, storing, and cooking tips for cheese. Recipes are included.
Milk in Family Meals—A Guide for Consumers (G–127) 30¢. This pamphlet gives buying, storing, and cooking tips for milk. Recipes are included.

SUGGESTIONS FOR TEACHING

1. Have a cheese tasting party. (Perhaps students can each bring a sample of a different cheese.) This will encourage wider use of cheese as a part of meals.

2. Compare natural cheese, pasteurized process cheese, pasteurized process cheese food, pasteurized process cheese spread, and coldpack cheese. The best way would be to buy some of each. Compare taste, uses, prices, etc.

3. Visit the supermarket singly or as a group to see the variety of dairy products available. (If students go separately, you may want to ask them to make a list of every dairy product at the dairy counter. They'll be surprised how long the list is.) Have students look for the USDA grade shield on butter—also check for it on Cheddar cheese.

4. You may want students to compare the cost of getting the equivalent of a cup of milk using different dairy products. (See the "How to Buy Dairy Products" pamphlet for a milk equivalencies chart.)

GLOSSARY

You may want to reproduce this glossary for your students. It can serve as a useful reference both during the lesson series and afterwards.

Blue-vein mold ripened—This type of natural cheese is cured by the use of a characteristic mold culture that grows throughout the interior of the cheese to produce the familiar appearance and characteristic flavor.

Butter—Butter is made by churning pasteurized cream. It must have at least 80-percent milkfat, according to Federal law.

Chocolate flavored milk—Made from pasteurized whole milk with sugar and chocolate sirup or cocoa added.

Coldpack—Also called **Club cheese,** this cheese is a blend of the same or two or more varieties of fresh and aged natural cheese. This type of cheese, unlike process cheese, is mixed without heating.

Cottage cheese—A soft unripened natural cheese that can be bought in cup-shaped containers. FDA requires that it have no more than 80-percent moisture.

Dry whole milk—Pasteurized whole milk with the water removed.

Evaporated milk—Made by heating homogenized whole milk under a vacuum to remove half of its water, then sealing it in cans and sterilizing it.

Firm ripened—This type of natural cheese ripens

with the aid of a bacterial culture, throughout the entire cheese.

Frozen custard—Ice cream with egg yolks added. Also may be called French ice cream.

Grade A milk—According to standards recommended to States in the Public Health Service "Grade A Pasteurized Milk Ordinance," Grade A milk must come from healthy cows, and be produced, pasteurized, and handled under strict sanitary control enforced by State and local sanitation officials. The Grade A rating denotes wholesomeness rather than a level of quality.

Half-and-half—A mixture of milk and cream homogenized. Under Federal requirements, it must have a minimum of 10.5 percent milkfat.

Homogenized milk—Milk that has been treated to reduce the size of the milkfat globules. This keeps the cream from separating.

Heavy whipping cream—Cream with at least 36-percent milkfat.

Ice cream—Ice cream is made from cream, milk, sugar, flavorings, and stabilizers. It must contain at least 10-percent milkfat.

Ice milk—Ice milk is made from milk, stabilizers, sugar, and flavorings. It contains between 2- and 7-percent milkfat.

Instant nonfat dry milk—A dairy product resulting from the removal of nearly all the fat and water from pasteurized fluid milk. It's made by a process that produces larger flakes than regular nonfat dry milk, which dissolve "instantly" in water.

Light cream—(Also coffee or table cream). This cream must have at least 18-percent milkfat.

Light whipping cream—This cream must have at least 30-percent milkfat under Federal standards of identity.

Lowfat milk—Lowfat milk is partially skimmed milk that has between .5- and 2-percent milkfat, depending on State regulations.

Mellow—Degree of curing (or ripening) for cheese—usually Cheddar. Cured (held at a specific temperature and humidity) longer than mild cheese, but not as long as sharp. A moderately sharp flavor results. Also called **medium.**

Mild—Degree of curing (or ripening) for cheese—usually Cheddar. Cured (held at a specific temperature and humidity) for less time than other curing categories. Short curing time develops mild flavor.

Natural cheese—Cheese processed directly from milk.

Pasteurized process cheese—This is a blend of fresh and aged natural cheeses which have been shredded, mixed with emulsifiers, and pasteurized, after which no further ripening occurs. Pasteurized process cheese food is the same, but with nonfat dry milk or whey solids and water added. Pasteurized process cheese spread is the same as cheese food but has higher moisture and lower milkfat content.

"Quality Approved"—Refers to a USDA "Quality Approved" shield which may appear on cottage cheese and process cheese produced under a special USDA program. The shield is assurance of good quality and sanitary processing.

Semisoft ripened—Semisoft ripened cheeses ripen from the interior as well as from the surface. These cheeses contain higher moisture than the firm ripened varieties.

Sharp—Degree of curing (or ripening) for cheese—usually Cheddar. Cured (held at a specific temperature and humidity) longer than other curing categories. A sharp flavor results. Also called **aged.**

Sherbet—Made from milk, fruit or fruit juice, stabilizers, and sugar.

Skim milk—(Also called nonfat milk) Has less than .5-percent milkfat, the percentage allowed under Federal requirements.

Soft ripened—In soft ripened cheese, curing progresses from the outside or rind of the cheese toward the center. These cheeses contain more moisture than semisoft ripened varieties.

Sour cream—Sour cream is made by adding lactic acid bacteria culture to light cream. It is smooth and thick and contains at least 18-percent milkfat.

Sour half-and-half—Sour half-and-half is the same as half-and-half, except that a culture has been added.

Sweetened condensed milk—Concentrated milk with at least 40-percent sugar added to help preserve it. This canned milk is prepared by removing about half the water from whole milk. It has at least 8.5 percent milkfat.

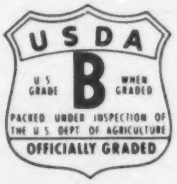
Unripened—Soft unripened cheeses contain relatively high moisture and do not undergo any curing. They are consumed fresh after manufacture. Firm unripened cheeses also may be used soon after manufacture, but, because they contain very low moisture, may be kept for several weeks.

U.S. Extra Grade — This USDA quality grade may be used on instant nonfat dry milk produced under USDA's continuous inspection program. The grade rating assures a high quality product that mixes instantly with water, and has a sweet and pleasing flavor and a uniform natural color.

USDA Grade AA—Highest quality grade for both butter and Cheddar cheese.

USDA Grade A — Second highest quality grade for both butter and Cheddar cheese.

USDA Grade B—Lower quality grade for butter. Grade B butter is generally made from sour cream and has a slightly acid flavor.

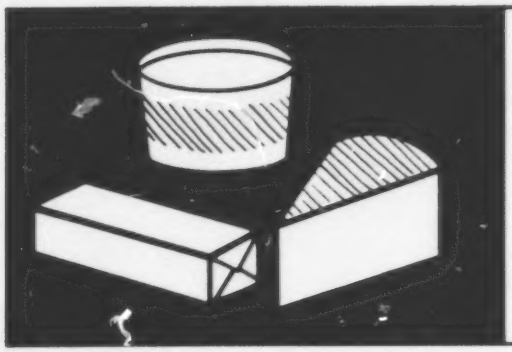


Very hard ripened—These natural cheeses are cured with the aid of a bacterial culture and enzymes. The rate of curing is very slow because of the very low moisture and high salt content.

Vitamin D milk—In Vitamin D milk, the vitamin D content has been increased to at least 400 U.S.P. units per quart. This is the minimum daily requirement for children, pregnant women, and nursing mothers.

Water ice—Water ice is like sherbet except that it contains no milk solids.

Yogurt—A custard-like product made by fermenting milk with a special culture. It is usually made from homogenized, pasteurized whole milk, but may be made from skim or partly skimmed milk.



Do You Know Your Dairy Products?

The best hedge against under-nutrition is knowledge of food—in terms of nutrition, quantity, and quality.

Take this quiz to see what you know about dairy foods.

QUESTIONS

1. Match the dairy product with its description.
   a. skim milk
   b. lowfat milk
   c. nonfat dry milk
   d. evaporated milk
   e. yogurt
      1. results from the removal of fat and water from pasteurized fluid milk.
      2. milk with less than .5-percent milkfat.
      3. milk with the addition of a special bacterial culture to make it custard-like.
      4. a homogenized product containing about half as much water as whole milk.
      5. has between .5 and 2 percent milkfat.
2. One way to judge the quality of Cheddar cheese is to look for
   a. good color.
   b. the longest curing category.
   c. the U.S. Grade AA shield.
3. The best butter is made from
   a. selected sour cream.
   b. sweet cream.
   c. fresh milk.
4. The U.S. Extra Grade shield on packages of instant nonfat dry milk shows that
   a. the milk is good quality.
   b. the product is wholesome.
   c. the product was manufactured under the constant watch of a USDA dairy inspector.
   d. all of these.
5. How much can a family of four using 21 quarts of milk a week save by using nonfat dry milk rather than whole milk delivered to the home?
   a. more than $3.00 a week.
   b. 50 cents a week.
   c. $1.00 a week.
6. How long can you keep Cheddar cheese in good condition in your refrigerator?
   a. one week.
   b. several weeks.
   c. must be used immediately.
7. Process cheese is
   a. a soft cheese made from goat's milk.
   b. American-made Cheddar cheese.
   c. a mixture of fresh and aged natural cheese, pasteurized.
8. How many glasses of milk should adults drink each day?
   a. two or more.
   b. less than two.
   c. three or more.
   d. four or more.

ANSWERS

1. a–2; b–5; c–1; d–4; e–3.

2. (c) the U.S. Grade AA shield. This is a mark of the highest quality and is used on some Cheddar cheese. Cheese that meets this grade has a fine, highly pleasing flavor, a smooth compact texture, uniform color, and attractive appearance. The curing category refers to the time the Cheddar cheese is aged and the resulting strength of flavor. U.S. Grade AA cheese is available in the three curing categories of mild, mellow, and sharp.

3. (b) sweet cream. U.S. Grade AA butter is made from fresh sweet cream and has a delicate, sweet flavor, with a fine aroma and a smooth creamy texture. The next highest grade for butter—U.S. Grade A—is made from fresh cream, has a pleasing flavor and is close to the top grade. U.S. Grade B butter is generally made from selected sour cream and has a slightly acid flavor.

4. (d) all of these. The U.S. Extra Grade shield means instant nonfat dry milk must meet the U.S. standards for that grade: it must have a sweet, pleasing flavor, and a natural color; it must dissolve instantly when mixed with water. To earn this shield, the product must be made in a plant that operates under continuous USDA inspection.

5. (a) more than $3.00 a week. The lower price of nonfat dry milk is a result of lower shipping and handling costs because fat and water are extracted in the dairy plant. People who want to keep their weight down like nonfat dry milk because it has half the calories of whole milk but most of the nutrients.

6. (b) several weeks. Most hard cheeses can be kept for several weeks in the coldest part of your refrigerator. Keep cheese in the original wrapper until you are ready to use it. Wrap cut cheese in foil, waxed paper, or plastic to prevent drying. Soft cheeses can be kept in the refrigerator from three to five days.

7. (c) a mixture of fresh and aged natural cheeses pasteurized. Process cheese will melt easily when heated.

8. (a) two or more. The USDA daily food guide recommends the equivalent of two or more glasses of milk daily.

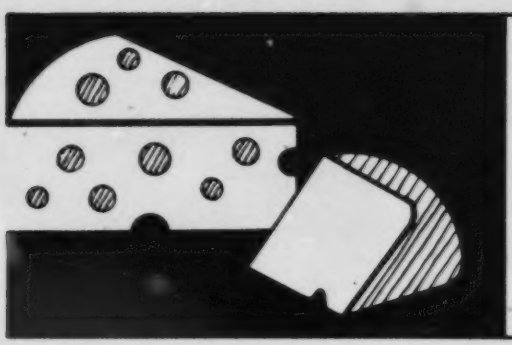
SCORING

Give yourself five points for each correct answer.

35-40 Excellent. You really know your dairy products.

30-35 Good. You know your dairy products, but you could stand a little refreshing.

Below 30 is Fair. Brush up on your dairy products. They're one of your most important foods.



Check Up on Your Cheeses

What do you know about cheese? If you want to be an expert, this quiz will send you on your way. Check up on your cheeses to learn how to buy them and enjoy them.

QUESTIONS

1. Which group is all natural cheese?
   a. Cottage, Parmesan, Cheddar
   b. Limburger, cream, pasteurized process
   c. all of the above are natural cheeses
2. Which of the following makes cheeses different?
   a. the kind of milk used (skim milk, whole milk, etc.).
   b. the method used for curdling the milk.
   c. the temperature during ripening.
   d. all of these.
3. Cottage cheese is a(n) _____ variety of cheese.
   a. unripened.
   b. blue-vein mold ripened.
   c. soft ripened.
   d. very hard ripened.
4. Cheese should be stored
   a. in the cupboard or some dry place until the wrapping is opened.
   b. frozen unless it will be used immediately.
   c. in the refrigerator, wrapped to keep the surface from drying.
5. Cheeses are usually best served at room temperature.
   a. True.
   b. False.
6. Cheddar cheese is America's favorite natural cheese. If you buy a brand of Cheddar cheese with the USDA Grade AA shield, you know the cheese will
   a. have a highly pleasing flavor.
   b. be of uniform color.
   c. have a smooth compact texture.
   d. all of these.
7. Pasteurized process cheese food
   a. is the same as pasteurized process cheese spread.
   b. melts faster than process cheese.
   c. has more cheese flavor than pasteurized process cheese.

ANSWERS

1. (a) Cottage, Parmesan, Cheddar. Natural cheese is cheese manufactured directly from milk. Natural cheeses include not only cottage, Parmesan, and Cheddar, but Swiss, Blue, cream, Limburger, and virtually hundreds of other varieties. Pasteurized process cheese is not natural cheese because it is processed from other cheeses instead of directly from milk. Pasteurized process cheese is a blend of fresh and aged natural cheeses which are heated and mixed. There is also pasteurized process cheese food which contains additional ingredients, such as nonfat dry milk. Pasteurized process cheese spread is like cheese food, except that it has higher moisture and lower milkfat. Club cheese, or coldpack cheese, is a blend of natural cheeses, like process cheese, except that the cheese is blended without heating. There is also coldpack cheese food which, like pasteurized process cheese food, includes other ingredients.

2. (d) all of these. The distinctive flavor and texture of different cheeses are due to all of these procedures and others as well. Others include the amount of salt or other seasonings added, the length of time of ripening, and the humidity during ripening. Some minor difference in any of these procedures can make for a completely different variety of cheese.

3. (a) unripened. Natural cheeses are generally classified according to the ripening time for each. There are six general classifications. **Unripened** types include both soft and firm unripened cheeses. Soft unripened cheeses, such as cottage and cream cheese, have a high moisture and undergo no ripening. They are consumed fresh soon after manufacture. Firm unripened cheeses such as Mozzarella are not ripened but have very low moisture so they may be stored longer. **Soft ripened** cheeses are those such as Camembert. Curing progresses from the outside, or rind, to the center. The distinctive mold or bacteria culture on the surface of the cheese helps give it its flavor. **Semisoft ripened** cheeses like brick and Muenster ripen from the interior as well as the surface by using surface growth and bacterial culture. They are also less moist than soft ripened cheeses. **Firm ripened** cheeses like Swiss and Cheddar are ripened throughout the entire cheese. Since the rate and degree of curing is closely related to the moisture content of cheese, these cheeses, being lower in moisture, usually require a longer curing time. **Very hard ripened** cheeses are cured very slowly because of their very low moisture and high salt content. Parmesan and Romano are very hard ripened cheeses. **Blue-vein mold ripened** cheeses like Blue or Roquefort are cured by using a characteristic mold culture that grows throughout the interior of the cheese to produce the familiar appearance and flavor.

4. (c) in the refrigerator. All cheeses should be refrigerated. Ripened cheese keeps well in the refrigerator for several weeks. Only soft unripened cheeses must be used within a few days. The surfaces of cheese should be covered to avoid drying.

Although small pieces of some cheeses can be frozen, normally freezing may damage a cheese's characteristic body and texture and cause the cheese to become crumbly or mealy.

5. (a) True. Except for soft unripened cheeses like cottage cheese, all natural cheese should be served unchilled to help bring out its distinctive flavor and texture. This usually requires 20 minutes to 1 hour or more at room temperature, depending on the size of the piece of cheese.

6. (d) all of these. USDA Grade AA Cheddar cheese must have a highly pleasing flavor, a smooth compact texture, and an attractive appearance and uniform color. When Cheddar carries the USDA grade shield, the cheese has been graded by a highly trained Government grader, and has been produced in a USDA inspected and approved plant.

In addition to Grade AA, Cheddar cheese may also carry a Grade A shield. This Cheddar is also of good quality, but not quite as high as Grade AA.

7. (b) melts faster than process cheese. Process cheese food contains less cheese, and has a lower milkfat content and more moisture than process cheese. Cheese spread has less milkfat and higher moisture than cheese food.

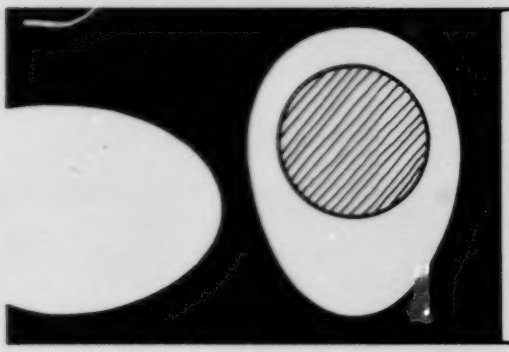
SCORING

Give yourself five points for each correct answer.

30-35 Excellent. You're a cheese gourmet. You know how to put a good nutritional food to good use.

25-30 Good. You know your cheeses pretty well. To make gourmet status, study "How to Buy Cheese."

15-25 Fair. You could stand a few cheese lessons. Experience is a great teacher so serve more kinds of cheese more often.



Lesson Aid III--Eggs

OBJECTIVES

From this lesson:

1. Students should learn what USDA grades mean on egg cartons, and for which uses each grade is best.

2. Students should learn what the size of eggs means, especially that size and grade are not related.

MATERIALS TO USE

Pamphlets

How to Buy Eggs

Flyers

(from PA-976—How to Buy Food)
How to Buy Eggs

Quizzes

What Do You Know About Eggs? (p. 29)

Table

Calculating the Cost of Eggs (p. 30)

Visual Aids

"Egg Grades—A Matter of Quality"—This 12-minute color film describes egg marketing and how eggs are graded. Purchase price $68.

"How to Buy Eggs" (C-139) Available either as a slide set ($13) or a filmstrip ($5.50). This set tells how to buy eggs by grade and size. Audio cassette available with both slides and filmstrip. $3.

Know the Eggs You Buy (PA-70) 25¢. This small color poster (11¾" by 17½") illustrates grades and sizes for eggs.

Know the Eggs You Buy (AMS-543) 60¢. This large color poster (30" by 45") is the same as PA-70.

Supplementary Material

Eggs in Family Meals—A Guide for Consumers (G-103) 15¢. This pamphlet gives buying, storing, and cooking tips for eggs. Recipes are included.

SUGGESTIONS FOR TEACHING

1. Bring in (or have students bring in) several different egg cartons to see various size and grade markings. Discuss differences between size and grade, what the USDA shield means, where it is found, etc.

2. Reproduce the "Calculating the Cost of Eggs" table. Go over the explanation of how to use the table with the students. Then have them work a few problems:

If Grade A Large eggs cost 79¢ a dozen, and Grade A Extra Large eggs cost 85¢ a dozen, which is the better buy? (The difference in price is 6¢, less than the 10¢ price spread listed in the table, so the Extra Large eggs are the better buy.)

If Grade AA Large eggs cost 87¢ a dozen, and Grade AA Medium eggs cost 75¢ a dozen, which is the better buy? (The difference in price is 12¢, more than the 11¢ price spread in the table, so Medium eggs are the better buy.)

3. Have students calculate the cost of eggs per pound without using the price spread chart. One dozen Large eggs weigh 1½ pounds.

GLOSSARY

You may want to reproduce this glossary for your students. It can serve as a useful reference both during the lesson series and afterwards.

Baked eggs—(or **shirred eggs**) Eggs broken from the shell and cooked in an oven or oven-type appliance.

Candling—A process of examining the interior of the egg without breaking the shell. Eggs are twirled in front of or over lights so the inside can be observed. Years ago a candle was actually used; hence, the term "candling." See **hand candling** and **mass candling.**

30

Chalaza—The twisted, rope-like strands of material appearing on each side of the egg yolk. These strands are highly concentrated egg white and are a natural, wholesome part of the egg. They anchor the yolk in place.

Egg grader—Any Federal or State employee licensed to certify egg class, quality, quantity, and condition, according to USDA's shell egg grading regulations.

Extra Large—The second largest size eggs sold. Sizes refer to minimum weight per dozen. 27 ounces for Extra Large.

Federal-State Graded—When grading is done in cooperation with a State the official grade shield may include the words "Federal-State Graded."

Fresh Fancy—Another name for U.S. Grade AA eggs, but used under a special USDA quality control program. See **U.S. Grade AA.**

Fried eggs—Eggs broken from the shell and cooked in a pan—usually a frying pan.

Grade—There are three consumer grades for eggs: U.S. Grade AA (or Fresh Fancy), U.S. Grade A and U.S. Grade B. See these terms. Graded eggs have been examined by a grader to determine factors such as the condition of the white and yolk and the cleanliness and soundness of the shell.

Hand candling—A method of determining interior quality of eggs by holding single eggs before a strong light. Hand candling is used very little in present commercial operations but is used for checking accuracy in grading.

Hard cooked eggs—Eggs covered with water and cooked in the shell until the white and yolk solidify. The water should be kept just below boiling to prevent tough, rubbery eggs.

Jumbo—Largest size eggs sold. Minimum weight per dozen is 30 ounces.

Large—Size of eggs. Minimum weight per dozen is 24 ounces.

Mass candling—Large commercial operations use electronic equipment for "mass scanning" or "flash candling" where thousands of eggs can be examined each hour. The eggs are placed on a continuous conveyor system and mechanically rotated over strong lights. Skilled personnel observe the condition of the yolk and white and the cleanliness and soundness of the shell.

Medium—Size of eggs. Minimum weight per dozen is 21 ounces.

Peewee—Size of eggs. Minimum weight per dozen is 15 ounces. This size is not often found at the retail store.

Poached eggs—Eggs broken from the shell and cooked in a hot liquid (usually water).

Scrambled eggs—Eggs broken from the shell, beaten, then cooked—usually in a frying pan; may also be cooked in a double boiler or in the oven.

Shell color—The color of the egg shell, which may vary from white to deep brown. The color is determined by the breed of hen and does not affect the nutritive value, quality, flavor, or cooking performance of the egg. Consumer preference varies in different parts of the country—some people prefer white eggs; others prefer brown.

Size—Refers to various sizes—or weight classes—of shell eggs expressed in ounces per dozen. There are six sizes: Jumbo, Extra Large, Large, Medium, Small, and Peewee. See these terms.

Small—Size of eggs. Minimum weight per dozen is 18 ounces.

Soft cooked eggs—Eggs covered with water and cooked in the shell until the white and yolk are of a soft consistency. The water should be kept just below boiling.

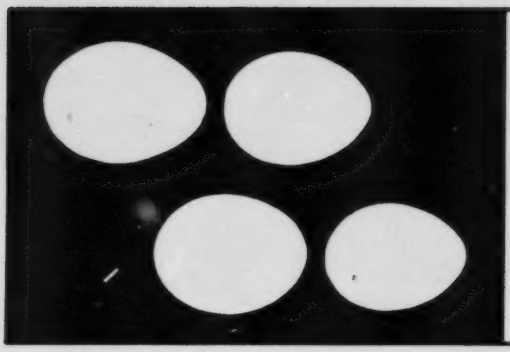
U.S. Grade AA—(or **Fresh Fancy**) This is the top USDA consumer grade for shell eggs. These eggs are ideal for all purposes, but especially for frying and poaching where appearance is important. The broken out egg covers a small area. The white is thick and stands high and the yolk is firm and high.

U.S. Grade A—This is the second highest USDA consumer grade and the one most often found in the retail store. The broken out egg covers a moderate area. The white is reasonably thick and stands fairly high and the yolk is firm and high.

U.S. Grade B—This is the lowest USDA consumer grade for eggs. It is not often found in retail stores. The white is thinner and the egg spreads out more than U.S. Grade AA and A eggs, and the yolk is somewhat flattened. Grade B eggs are satisfactory for general cooking and baking where appearance is not important.

White—(or albumen) White part of the egg, surrounding the yolk.

Yolk—The yellow part of the egg.



What Do You Know About Eggs?

Uncertain about your knowledge of eggs and egg quality? Try this true-false quiz and see how much you really know about buying and storing eggs.

TRUE or FALSE

1. A U.S. Grade A Large egg is better than a U.S. Grade A Medium egg.
2. You should never use a dirty or cracked egg in an eggnog.
3. A U.S. Grade B egg will be just as nutritious as a U.S. Grade A egg.
4. For best quality, store eggs promptly with large end up in your refrigerator.
5. All eggs in a carton marked "Large" are identical in size.
6. All cartons marked "Grade A" have been officially graded by the Federal-State Grading Service.
7. Eggs are no good after a week in the refrigerator.
8. If you want to serve poached eggs, U.S. Grade AA or A eggs would be your best choice.
9. Shell color does not affect the nutritive value or quality of eggs.
10. Leftover egg yolks should be covered with cold water before storing in the refrigerator.

ANSWERS

1. False. A large egg is **bigger** than a medium egg, not better. Remember, size refers to weight of the egg; the grade refers to the quality of the egg.

2. True. Eggs eaten uncooked—as in an eggnog—should always be clean and shouldn't be cracked. This is just to insure an extra safeguard for your family against possible contamination by bacteria. Never buy cracked or dirty eggs. If one becomes cracked accidentally, use it only in thoroughly cooked dishes. Don't use dirty eggs for any purpose.

3. True. The Grade B egg may not look quite as nice as the Grade A egg if you fry or poach it, but it will be just as nutritious.

4. True. Keep eggs large end up, and the natural quality of the eggs will last longer. What's more, the yolk won't stick to the shell. Refrigeration is also needed to preserve the natural quality of eggs. Buy eggs only from a refrigerated case, and put them into the refrigerator promptly at home. Holding eggs for any time in a warm place—a car, for example—causes quality to decline rapidly.

5. False. If a carton of USDA-graded eggs is labeled "Large," all the eggs together must weigh at least 24 ounces. There may be some slight variation between individual eggs. The sizes usually available to consumers, and the minimum weight per dozen for each are: Extra Large, 27 ounces; Large, 24 ounces; and Medium, 21 ounces.

6. False. Only egg cartons with the official USDA grade shield have been officially graded under the Federal-State grading program. Cartons marked "Grade A" **without** the grade shield are under State or local jurisdiction.

7. False. Eggs will lose some quality (appearance) after a week in the refrigerator, but they will usually still be just as good in taste and in nutritive value. To prevent off-taste, don't store eggs next to cheese, citrus, fish, or other aromatic foods.

8. True. U.S. Grade AA and A eggs have high standing yolks, thick whites and won't spread out in the pan. These highest quality eggs are best for poaching or frying.

9. True. Shell color is determined by the breed of hen. It does not affect the nutritive value, quality, or cooking performance of an egg.

10. True. Leftover egg yolks should be covered with cold water and stored in the refrigerator in a tightly closed container. Use within a day or two. Extra egg whites should also be refrigerated promptly in a tightly closed container and used within a day or two. Don't cover the egg whites with water.

SCORING

Give yourself five points for each correct answer.

40-50 Excellent. You know how to buy eggs by grade and size.

30-40 Good. You're a good shopper, but you could use a little more studying.

Below 30 Fair. You're a fair shopper. You might want to give your "How to Buy Eggs" pamphlet a closer look.

CALCULATING THE COST OF EGGS

Did you ever look at eggs of different sizes and wonder which was the better buy?

To make that decision, the first thing you need to know is that although eggs are sold by the dozen, the price you pay relates to the size—or minimum weight per dozen. There are six official weight classes, ranging from Peewee (15 ounces per dozen) up to Jumbo (30 ounces per dozen). The most commonly sold sizes are: Extra Large—27 ounces per dozen; Large—24 ounces; Medium—21 ounces; and small—18 ounces. In other words, there is a difference of at least 3 ounces per dozen between each of the sizes.

The following table shows a method of quick calculation to find the better buy by weight, between eggs of one size and the next larger or smaller size.

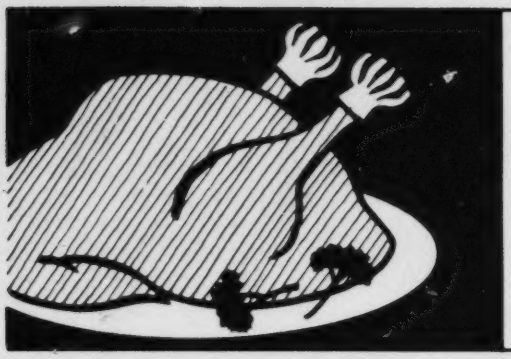
To use it, first find the price of Large eggs in the column at left. The figure in the right column opposite the price of large eggs will tell you the average price spread between a dozen eggs of one size and the next larger or smaller size. If the price difference between adjacent sizes of eggs exceeds the price spread figure, the smaller eggs are a better buy. If the difference is less than the price spread figure, the larger eggs are a better buy.

For example, the price of Large eggs is 79 cents a dozen. The price of the next larger size, Extra Large eggs, is 85 cents. The difference is 6 cents. Because 6 cents is less than 10 cents (the price spread listed in the table) the Extra Large eggs are the better buy. If the Large eggs are 79 cents and the Extra Large 90 cents, the difference of 11 cents would exceed the price spread listed in the table. The Large eggs would then be the better buy.

Remember that accurate comparisons can be made only between eggs of the same grade. (Lower grades normally sell at a lower price.)

When the price per dozen of "Large" eggs is—	Buy the larger of two sizes if the price difference per dozen between one size and the next larger size is less than—
cents	cents
41-48	6
49-56	7
57-64	8
65-72	9
73-80	10
81-88	11
89-96	12
97-104	13
105-112	14
113-120	15

Table developed by Agricultural Research Service



Lesson Aid IV--Poultry

OBJECTIVES

From this lesson:

1. Students should learn what the USDA grade means on poultry.

2. Students should learn how to read the label: what are broilers, stewing chickens, ducklings, etc., and when should they buy one instead of another? (For example, when would a stewing chicken be more suitable to use than a broiler?)

MATERIALS TO USE

Pamphlets

How to Buy Poultry

Flyers

(from PA-976—How to Buy Food)
How to Buy Chicken and Turkey

(separate one-page flyers)
How to Carve Roast Turkey
How to Cut Up A Chicken
How to Debone Chicken Breasts

Quiz

Poultry Problem-Solving (p. 33)

Tables

Comparative Costs of Chicken Parts (p. 34)
Comparative Costs of Turkey Parts (p. 35)

Visual Aids

"Something to Crow About" A 16 mm. 27½ minute color film that follows a European magazine writer through a hatchery, feed mill, broiler farm, processing plant, and supermarket to show the role of USDA inspection and grading programs for poultry and poultry products. Purchase price $190.

Supplementary Materials

Poultry in Family Meals—A Guide for Consumers (G-110) 15¢. This pamphlet gives buying, storing, and cooking tips for poultry. Recipes are included.
Quick Tips on Meat & Poultry Care and Labels.* This flyer tells how to keep meat and poultry products clean and safe and explains labeling requirements.
Quick Tips on Meat & Poultry Storage & Cookery.* This flyer gives temperatures for cooking and storage and other tips on food safety.
Summertime Foods Questions and Answers.* This flyer gives special information on keeping meat and poultry safe for barbecues and picnics.

SUGGESTIONS FOR TEACHING

1. Have students list the various kinds of poultry they find in the supermarket and discuss how to cook each kind. (Examples might include: stewing chicken; broiler; capon; Rock Cornish game hen; young tom turkey; mature turkey; duckling, etc.) Have them note which kinds carry the USDA grade shield.

2. Reproduce the "Comparative Costs of Chicken Parts" and "Comparative Costs of Turkey Parts" tables for your students. Discuss with them how to get the most poultry for their money.

GLOSSARY

You may want to reproduce this glossary for your students. It can serve as a useful reference both during the lesson series and afterwards.

Barbecue—To roast poultry slowly on a gridiron or spit, over coals, or under free flame, usually basting with a seasoned sauce. Popularly applied to poultry cooked in or served with barbecue sauce.

Broil—To cook poultry by direct heat, as in the broiler part of the oven.

* Available from Information Division, APHIS, USDA, Washington, D.C. 20250.

Broiler—(or **fryer**) A young chicken (usually 7 to 10 weeks of age) of either sex, that is tender-meated with smooth-textured skin.

Broiler duckling—(or **fryer duckling**) A young tender-meated duck (usually under 8 weeks of age) of either sex.

Capon—A surgically unsexed male chicken (usually under 8 months of age) that is tender-meated with soft, smooth-textured skin.

Class—Age. Will be indicated on labels as, for example, "young" or "mature" poultry, or by terms such as "broiler" or "roaster." The class indicates the cooking method necessary for maximum flavor and tenderness. See **young** and **mature.**

Federal-State Graded—When grading is done in cooperation with a State, the official grade shield may include the words "Federal-State Graded."

Fowl—(or **hen** or **stewing chicken**)—A mature female chicken (usually more than 10 months of age) with meat less tender than that of a roaster.

Fry—To cook poultry in fat. Poultry cooked in a small amount of fat may be called panfried. Poultry cooked in a deep layer of fat may be called deep-fat fried.

Fryer—See broiler.

Fryer duckling—See **broiler duckling.**

Fryer-roaster turkey—A young immature turkey (usually under 16 weeks of age) of either sex, that is tender-meated with soft, smooth-textured skin.

Grade—There are three grades for poultry: U.S. Grade A, U.S. Grade B, and U.S. Grade C (see these terms).

Hen—See **fowl.**

Inspection—Poultry must be officially inspected for wholesomeness before it can be graded for quality. Poultry passing Federal inspection is stamped with this mark.

Kinds—Various species of poultry: chickens, turkeys, ducks, geese, and guineas.

Mature—Old, less tender-meated classes of poultry. Best cooked by simmering, steaming, braising, stewing, or pressure cooking. May be labeled "mature," such as "mature turkey," or "mature goose," or "fowl," "hen," or "stewing chicken."

Poultry—Chickens, turkeys, ducks, geese, or guineas.

Poultry grader—Any Federal or State employee licensed to grade poultry; that is, to certify class, quality, quantity, and condition according to U.S. Department of Agriculture poultry grading regulations.

Ready-to-cook poultry—Whole dressed poultry which has been cleaned and is ready for cooking. Term also applies to poultry parts.

Roast—To cook poultry uncovered in an oven.

Roaster—A young chicken (usually 3 to 5 months of age), of either sex, that is tender-meated with soft, smooth-textured skin.

Roaster duckling—A young tender-meated duck (usually under 16 weeks of age) of either sex.

Rock Cornish game hen—A young immature chicken (usually 5 to 7 weeks of age) that is tender-meated with soft, smooth-textured skin. Weighs not more than 2 pounds ready-to-cook. A chicken of the Cornish breed or crossed with that breed.

Stew—To simmer poultry in a small quantity of liquid.

Stewing chicken—See fowl.

U.S. Grade A—The highest quality grade for poultry. U.S. Grade A poultry has a good over-all shape and appearance, is meaty and practically free from defects. U.S. Grade A is usually the only marked grade you will find in the store.

U.S. Grade B—The second quality grade for poultry. Not as attractive as Grade A; may have some dressing defects.

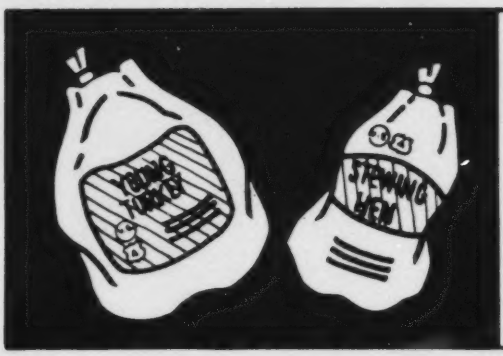
U.S. Grade C—The third quality grade for poultry. Grade C is not as attractive as Grades A and B and has some dressing defects.

Yearling hen turkey—A fully matured female turkey (usually under 15 months of age) that is reasonably tender-meated with reasonably smooth-textured skin.

Yearling tom turkey—A fully matured tom turkey (usually under 15 months of age) that is reasonably tender-meated with reasonably smooth-textured skin.

Young—Term for young tender-meated classes of poultry which are best for barbecuing, frying, broiling or roasting. May be labeled "young," such as "young turkey" or "young guinea," or indicated by terms such as "broiler," "roaster," "fryer."

Young tom turkey—A young male turkey (usually 5 to 7 months of age) that is tender-meated with soft, smooth-textured skin.



Poultry Problem-Solving

Many of us admit that we could learn something about choosing poultry. This quiz is for those who want to see how much they really know—or need to learn.

MULTIPLE CHOICE

1. A government inspection mark shows that your poultry has been inspected and is:
   a. tender and nutritious.
   b. wholesome.
   c. of good quality.
2. Poultry inspectors examine:
   a. every bird within an inspected plant.
   b. a representative sampling of each farmer's poultry.
   c. one of every ten birds.
3. The shield-shaped mark on a package of poultry or on a wing tag means:
   a. the poultry has been inspected for wholesomeness.
   b. the poultry has been graded for quality.
   c. both.
4. USDA Grade A means that poultry marked with this grade is:
   a. attractive in appearance.
   b. fully fleshed and meaty.
   c. practically free from defects.
   d. all of these.
5. The U.S. Department of Agriculture has grades for only two kinds of poultry: chicken and turkey.
   a. True.
   b. False.
6. Which of the following "class" names indicate young poultry?
   a. duckling.
   b. broiler-fryer.
   c. fryer-roaster turkey.
   d. fowl.
7. You want to prepare a chicken salad for a summer luncheon. Could you use a stewing chicken to make this?
   a. Yes.
   b. No.
8. Turkeys are hard to find in a store except at Thanksgiving and Christmas.
   a. True.
   b. False.
9. Chicken may be kept in your refrigerator, before cooking, for:
   a. not more than 1 to 2 days.
   b. 5 to 7 days.
   c. longer than 7 days.
10. Your turkey is large, so to save time on the day it is to be served, you plan to partially cook it the day before. Is it safe to do this?
   a. Yes.
   b. No.

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ANSWERS

1. (b) wholesome. The inspection mark is assurance of a clean, wholesome product. It does not relate to the quality or tenderness of poultry.

2. (a) every bird within an inspected plant.

3. (b) The shield-shaped grade mark is assurance the poultry has been officially graded for quality under USDA supervision. However, poultry may be graded only after it has been officially inspected for wholesomeness—so (c) is also a correct answer.

4. (d) all of these. These are the major quality factors determining the grade. USDA Grade A poultry is tops in all three. You will practically never see lower grade poultry carrying a grade designation.

5. (b) false. The U.S. Department of Agriculture has grades for chickens, turkeys, geese, ducks, and guineas.

6. (a) duckling, (b) broiler-fryer, and (c) fryer-roaster turkey. Duckling is a young duck. A young chicken may be labeled as a frying chicken, broiler, or Rock Cornish game hen. A young turkey may be labeled fryer-roaster, young turkey, young hen, or young tom. Fowl and hen are other names for stewing chicken. It is important to know these class names because they tell you not only the relative tenderness of poultry but also suggest appropriate cooking methods. Young poultry can be cooked in a variety of ways. Older poultry is best cooked with moist heat.

7. (a) yes. A stewing chicken would be appropriate for making chicken salad. Cooked properly, this older chicken can be just as tender as a young chicken. You could also use a frying chicken to make chicken salad. Price would probably determine your choice.

8. (b) false. Turkey is available the year round.

9. (a) not more than 1 to 2 days. Poultry is perishable, so it should be kept in a freezer at 0° F. if you do not plan to cook it within 2 days.

10. (b) no. Poultry should be completely cooked at one time. Never partially cook poultry one day and finish cooking it at a later time. This could encourage harmful bacteria growth.

SCORING

Give yourself five points for each correct answer.

40-50 Excellent. You're a good shopper who knows how to read labels.

30-40 Good. You're a good shopper but you could benefit from some additional information.

Below 30 Fair. You're a fair shopper, but you need a little more practice in poultry problem-solving.

COMPARATIVE COSTS OF CHICKEN PARTS[1]

If the price per pound of whole fryers, ready to cook, is—	Chicken parts are an equally good buy if the price per pound is—					
	Breast half		Thigh	Thigh and drumstick	Drumstick	Wing
	Without rib	With rib				
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
31	.42	.41	.35	.33	.32	.25
33	.45	.44	.37	.35	.34	.27
35	.48	.46	.39	.38	.36	.28
37	.50	.49	.41	.40	.38	.30
39	.53	.52	.43	.42	.40	.31
41	.56	.54	.46	.44	.42	.33
43	.59	.57	.48	.46	.44	.35
45	.61	.59	.50	.48	.46	.36
47	.64	.62	.52	.50	.48	.38
49	.67	.65	.55	.53	.50	.39
51	.70	.67	.57	.55	.53	.41
53	.72	.70	.59	.57	.55	.43
55	.75	.73	.61	.59	.57	.44
57	.78	.75	.63	.61	.59	.46
59	.80	.78	.66	.63	.61	.48
61	.83	.81	.68	.66	.63	.49
63	.86	.83	.70	.68	.65	.51
65	.89	.86	.72	.70	.67	.52
67	.91	.89	.75	.72	.69	.54
69	.94	.91	.77	.74	.71	.56
71	.97	.94	.79	.76	.73	.57
73	1.00	.97	.81	.78	.75	.59
75	1.02	.99	.84	.81	.77	.60
77	1.05	1.02	.86	.83	.79	.62
79	1.08	1.04	.88	.85	.81	.64
81	1.10	1.07	.90	.87	.83	.65
83	1.13	1.10	.92	.89	.85	.67
85	1.16	1.12	.95	.91	.88	.69
87	1.19	1.15	.97	.93	.90	.70
89	1.21	1.18	.99	.96	.92	.72

[1] Based on yields of cooked chicken meat with skin (only ½ skin on wings and back included), from frying chickens, ready to cook, that weighed about 2½ pounds.

Table prepared by Agricultural Research Service. Reprinted from Shopper's Guide, 1974 Yearbook of Agriculture.

COMPARATIVE COSTS OF TURKEY PARTS[1]

If the price per pound of whole turkey, ready-to-cook is—	Turkey parts and products are an equally good buy if the price per pound is—										
	Breast quarter	Leg quarter	Breast, whole or half	Drum-stick	Thigh	Wing	Turkey roasts		Boned turkey, canned	Turkey with gravy,[4] canned or frozen	Gravy with turkey,[5] canned or frozen
							Ready-to-cook[2]	Cooked[3]			
Dollars	Dollars		Dollars		Dollars		Dollars			Dollars	
.51	.57	.55	.65	.52	.62	.47	.89	1.17	1.15	.45	.19
.53	.60	.57	.68	.54	.65	.49	.93	1.22	1.19	.46	.20
.55	.62	.59	.70	.56	.67	.51	.96	1.26	1.24	.48	.21
.57	.64	.61	.73	.58	.70	.53	1.00	1.31	1.28	.50	.21
.59	.66	.63	.75	.60	.72	.55	1.03	1.36	1.33	.52	.22
.61	.69	.66	.78	.63	.75	.56	1.07	1.40	1.37	.53	.23
.63	.71	.68	.80	.65	.77	.58	1.10	1.45	1.42	.55	.24
.65	.73	.70	.83	.67	.80	.60	1.14	1.50	1.46	.57	.24
.67	.75	.72	.85	.69	.82	.62	1.17	1.54	1.51	.59	.25
.69	.78	.74	.88	.71	.85	.64	1.21	1.59	1.55	.60	.26
.71	.80	.76	.91	.73	.87	.66	1.24	1.63	1.60	.62	.27
.73	.82	.78	.93	.75	.89	.68	1.28	1.68	1.64	.64	.27
.75	.84	.81	.96	.77	.92	.69	1.31	1.72	1.69	.66	.28
.77	.87	.83	.98	.79	.94	.71	1.35	1.77	1.73	.67	.29
.79	.89	.85	1.01	.81	.97	.73	1.38	1.82	1.78	.69	.30
.81	.91	.87	1.03	.83	.99	.75	1.42	1.86	1.82	.71	.30
.83	.93	.89	1.06	.85	1.02	.77	1.45	1.91	1.87	.73	.31
.85	.96	.91	1.08	.87	1.04	.79	1.49	1.96	1.91	.74	.32
.87	.98	.94	1.11	.89	1.07	.80	1.52	2.00	1.96	.76	.33
.89	1.00	.96	1.13	.91	1.09	.82	1.56	2.05	2.00	.78	.33
.91	1.02	.98	1.16	.93	1.11	.84	1.59	2.09	2.05	.80	.34
.93	1.05	1.00	1.19	.95	1.14	.86	1.63	2.14	2.09	.81	.35
.95	1.07	1.02	1.21	.97	1.15	.88	1.66	2.18	2.14	.83	.36
.97	1.09	1.04	1.24	.99	1.19	.90	1.70	2.23	2.18	.85	.36
.99	1.11	1.06	1.26	1.01	1.21	.92	1.73	2.28	2.23	.87	.37

[1] Based on yields of cooked turkey meat excluding skin, medium to large birds.
[2] Roast, as purchased, includes 15 percent skin or fat.
[3] Roast, as purchased, has no more than one-fourth inch skin and fat on any part of surface.
[4] Assumes 35 percent cooked boned turkey, minimum required for product labeled "Turkey with Gravy."
[5] Assumes 15 percent cooked boned turkey, minimum required for product labeled "Gravy with Turkey."
Table prepared by Agricultural Research Service. Reprinted from Shopper's Guide, 1974 Yearbook of Agriculture.

Lesson Aid V--Fresh Fruits and Vegetables

OBJECTIVES

From this lesson:

1. Students should learn what a grade name means on a package of fresh fruits or vegetables.

2. Students should become familiar with the wide variety of fruits and vegetables they can buy, and should learn:

a. what to look for and what to avoid when they buy fresh fruits and vegetables, especially to avoid fruits and vegetables that are spoiled, immature, over-ripe, damaged, or inferior in other ways.

b. to buy only what they need, since fresh fruits and vegetables are highly perishable.

c. to handle all fruits and vegetables carefully, both at the supermarket and at home.

d. to buy when each fruit or vegetable is in season, and therefore of better quality and price.

MATERIALS TO USE

Pamphlets

How to Buy Fresh Fruits
How to Buy Fresh Vegetables
How to Buy Potatoes

Flyers

(from PA-976—How to Buy Food)
How to Buy Apples
How to Buy Carrots
How to Buy Fresh Fruits and Vegetables
How to Buy Onions
How to Buy Oranges
How to Buy Potatoes
How to Buy Salad and Cooking Greens

(separate one-page flyers)
How to Buy Celery
How to Buy Corn
How to Buy Mixed Nuts in the Shell
How to Buy Peaches
How to Buy Pears
How to Buy Sweetpotatoes
How to Buy Tomatoes

Quizzes

Does Produce Buying Stump You? (p. 38)
Posers on Potatoes (p. 39)

Chart

Fresh Fruit and Vegetable Availability Chart (p. 40)

Visual Aids

"Quality for All Seasons"—This 18-minute color film gives an overview of the marketing of fresh fruits and vegetables and shows how produce is inspected for quality. Purchase price $99.

Supplementary Materials

Fruits in Family Meals—A Guide for Consumers (G-125) 45¢. This pamphlet gives buying, storing, and cooking tips for fruit. Recipes are included.

Vegetables in Family Meals—A Guide for Consumers (G-105) 45¢. This pamphlet gives buying, storing, and cooking tips for vegetables. Recipes are included.

SUGGESTIONS FOR TEACHING

1. Each student may be assigned a group of fresh fruits or vegetables for a presentation; for example: greens, melons, apples, citrus fruits, berries. If possible, suggest they bring samples.

2. Have students on the alert for USDA grade names where applicable (such as on packaged carrots, onions, or potatoes).

3. Visit the supermarket produce department. Point out signs of freshness and ripeness for various fruits and vegetables.

4. Reproduce the "Fresh Fruit and Vegetable Availability Chart" for the students. Have them read the chart to find the fruits and vegetables that are in most supply and the ones in least supply for the current month.

GLOSSARY

You may want to reproduce this glossary for your students. It can serve as a useful reference both during the lesson series and afterwards.

All-purpose potatoes—These potatoes are used for boiling, frying, and sometimes for baking. They include both round and long types and are amply available year-round.

Baking potatoes—Russet Burbank potatoes are the best known among this group of potatoes, which are good for baking, as the name indicates.

Blossom end—The opposite end from the stem end of fruits. This end is more rounded.

Clingstone—One of two general types of peaches. (The other is freestone.) Flesh clings tightly to the pit with this type. It is usually used for canning.

Freestone—One of two general types of peaches. (The other is clingstone.) The flesh separates readily from the pit with this type. Freestone peaches are preferred for eating fresh or for freezing.

Ground color—The background color of a fruit before the sun's rays cause the skin to color. The ground color may be seen beneath and between the surface coloration of the fruit.

Hard—The terms "hard," "firm," and "soft" are subjective terms used to describe the maturity or ripeness of a fruit. A "hard" texture will not give when pressed. A "firm" fruit yields slightly to moderate pressure. A "soft" fruit yields readily to moderate pressure. The term "mature green" is sometimes used instead of "hard."

Mature—Term for fruit that is ready to be picked —whether or not it is ripe. If a fruit is picked when mature, it is capable of ripening properly.

Netting—The vein-like network of lines running randomly across the rind of some melons.

New potatoes—Either potatoes freshly harvested and marketed during late winter or early spring; or potatoes freshly dug which are not quite fully matured. These potatoes may be "skinned" in some places because the skin is very tender. Best use is boiling or creaming.

Produce—Inclusive term for all fresh fruits and vegetables.

Ripe—Describes a fruit or vegetable that is ready to be eaten.

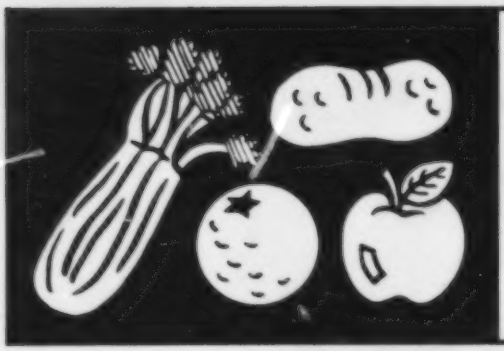
Russet Burbank—A long variety of baking potato with fine scaly netting on the skin—the best known of the baking potatoes.

Russeting—A lacy, brownish, blemish-type coating on top of the skin of fruits. It does not affect the eating quality of the fruit.

Scald—A blemish, or brownish discoloration which occasionally develops in the skin of apples or other fruits in cold storage.

Stem end—The stem end of fruit will have a scar or the remains of the stem to identify it.

U.S. No. 1—The top grade for most fresh fruits and vegetables. For a few, U.S. Extra No. 1, or U.S. Fancy, may be the top grade. The U.S. No. 1 grade is used extensively as a basis for trading between growers, shippers, and wholesalers and retailers. It is used to a limited extent in retail stores.



Does Produce Buying Stump You?

Fresh fruits and vegetables offer unlimited potential for good and good-for-you meals and snacks. But even experienced shoppers are sometimes stumped at the produce counter.

Test your produce shopping know-how with this true-false quiz.

TRUE or FALSE

1. U.S. Fancy apples are larger than U.S. No. 1 apples.
2. "New" potatoes normally have some skin missing.
3. It's all right to buy hard or green peaches because you can ripen them when you get them home.
4. Yellowing, wilted, or decayed tops do not affect the eating quality of green onions (scallions).
5. All fresh fruits and vegetables are inspected for quality (graded) by the U.S. Department of Agriculture.
6. The best buys of fresh fruits and vegtables can be made when they are in season.
7. If you buy tomatoes that aren't quite ripe, it's best to ripen them before you refrigerate them.
8. A special markdown on damaged fruits or vegetables can really mean a big saving.

ANSWERS

1. False. U.S. Fancy and U.S. No. 1 are grades established by the U.S. Department of Agriculture to describe the quality of apples. U.S. Fancy apples are of higher quality than U.S. No. 1, but apples of various sizes may be found in either grade.

2. True. "New" potatoes are marketed as soon as they are harvested and the skin usually is tender and not as well-set as that of potatoes which are stored before marketing.

3. False. Very firm or hard peaches with a distinctly green ground color (the basic color minus the blush) are probably immature and won't ripen properly. Buy peaches that are fairly firm or slightly soft, with a yellow or creamy ground color.

4. False. Yellowing, wilted, or decayed tops are indications that the edible portion of green onions may be flabby, tough, or fibrous. Choose green onions that have fresh, crisp, green tops. The white portion should extend 2 or 3 inches up from the root end.

5. False. Grading of fresh fruits and vegetables is a voluntary service provided by USDA's Agricultural Marketing Service. However, many packers have their fruits and vegetables graded by Federal or Federal-State inspectors as an aid in wholesale trading, and U.S. or similar State grades are sometimes shown on retail packages. Some produce must be graded and labeled under State or Federal regulations.

6. True. When you buy in season, the quality is usually better and prices are more reasonable. Also, each month USDA tells you through radio, television, and newspapers what foods are in best supply. These plentifuls are usually reasonably priced and a good choice for your menu planning.

7. True. If you store tomatoes that aren't fully ripe in the refrigerator, the cold temperature may keep them from ripening later on. Let tomatoes ripen in a warm place and then refrigerate them.

8. False. It's penny-foolish to buy damaged fruits or vegetables because even if you trim off decayed or bruised areas, the rest of the fruit or vegetable may be affected by deterioration anyway.

SCORING

Give yourself five points for each correct answer.

35–40 Excellent. No gaps in your produce knowledge!

30–35 Good. You know your fruits and vegetables pretty well.

25–30 Fair. Produce buying stumps you. Better study your "How to Buy Fresh Fruits" and "How to Buy Fresh Vegetables."

Posers on Potatoes

Are you a hot-shot shopper when it comes to potatoes? Take this quiz to find out.

MULTIPLE CHOICE

1. The USDA grade most often seen on bags of potatoes in retail stores is U.S. No. 1. The grade name tells you:
   a. where the potatoes were grown.
   b. whether they are round or long potatoes.
   c. the potatoes meet a specific level of quality.
2. Should you buy a potato that looks green?
   a. Yes.
   b. No.
   c. It depends on how green it is.
3. Before storing potatoes, be sure to:
   a. wash them.
   b. set aside any bruised or cracked potatoes and use them first.
   c. both a and b.
4. Potatoes should be stored in:
   a. a cool dark place with good ventilation.
   b. a warm dark place with good ventilation.
   c. an air-tight container, regardless of temperature.
5. If stored properly, general purpose and baking potatoes will keep:
   a. for several weeks.
   b. for several months.
   c. indefinitely.
6. A boiled medium-size potato contains:
   a. more calories than a large apple.
   b. the same amount of calories as a large apple.
   c. fewer calories than a large apple.
7. "Size A" marked on a bag of U.S. No. 1 potatoes means:
   a. the potatoes are all the same size.
   b. small potatoes.
   c. the potatoes must be of a minimum size.

ANSWERS

1. (c) The grade name designates a specific level of quality. Potatoes certified by Federal or Federal-State inspection as U.S. No. 1 quality are firm, well-shaped, smooth, and relatively clean. They may have a few defects, but are free from large cuts, growth cracks, bruises, skinned areas, and decay. Use of the U.S. grades or official grading services is voluntary. Sometimes packers label their potatoes by grade whether the potatoes were officially graded or not. But these potatoes should meet the standards for the grade if they are so labeled.

2. (b) No. Greening may affect only the skin of potatoes or it may penetrate the flesh. The green portions contain the alkaloid solanin which causes a bitter flavor. So don't buy green potatoes.

3. (b) It's a good idea to set aside any bruised or cracked potatoes and to use them first. But never wash potatoes before you store them. Dampness increases the likelihood of decay.

4. (a) Potatoes should be stored in a cool dark place with good ventilation. The most desirable temperature is from 45° to 50° F. Potatoes stored at 70° or 80° F. should be used within a week. The higher temperatures often cause sprouting and shriveling.

5. (b) If stored properly, general purpose and baking potatoes will keep up to several months. "New" potatoes in good condition will keep for several weeks.

6. (b) A plain, boiled medium-size potato contains about the same amount of calories as a large apple. Fats, gravies, and sauces commonly served with potatoes will, however, increase the calories.

7. (c) Size A means the potatoes must be at least 1⅞ inches in diameter, and 40 percent of them must be 2½ inches in diameter or 6 ounces in weight or larger.

SCORING

Give yourself five points for each correct answer.
30-35 Excellent.
20-30 Good.
Below 20 Fair. You can learn more about buying, storing, and using potatoes by reading "How to Buy Potatoes."

FRUIT AND VEGETABLE AVAILABILITY

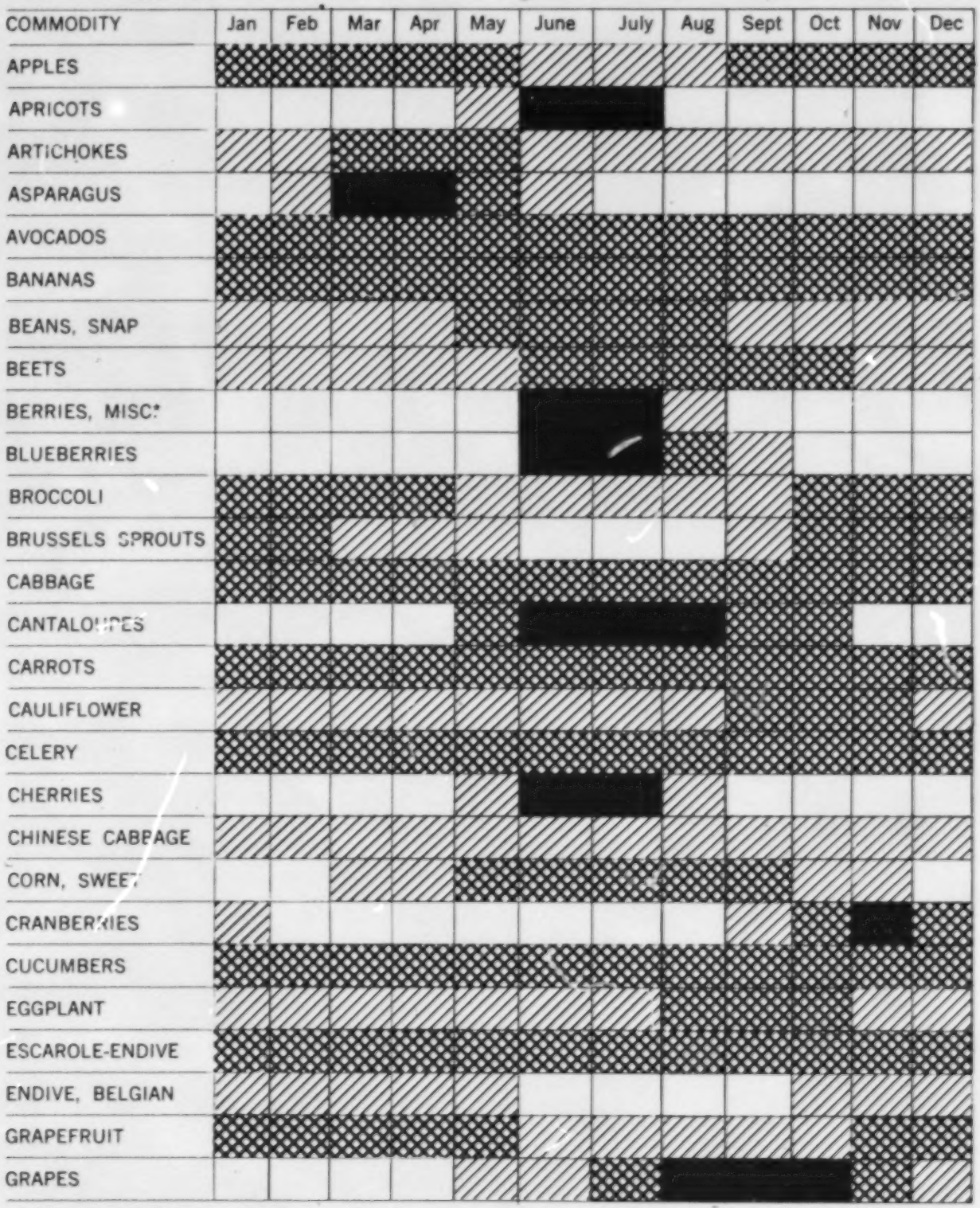
This chart shows when common fruits and vegetables are in supply.

Means supplies are scarce or nonexistent.

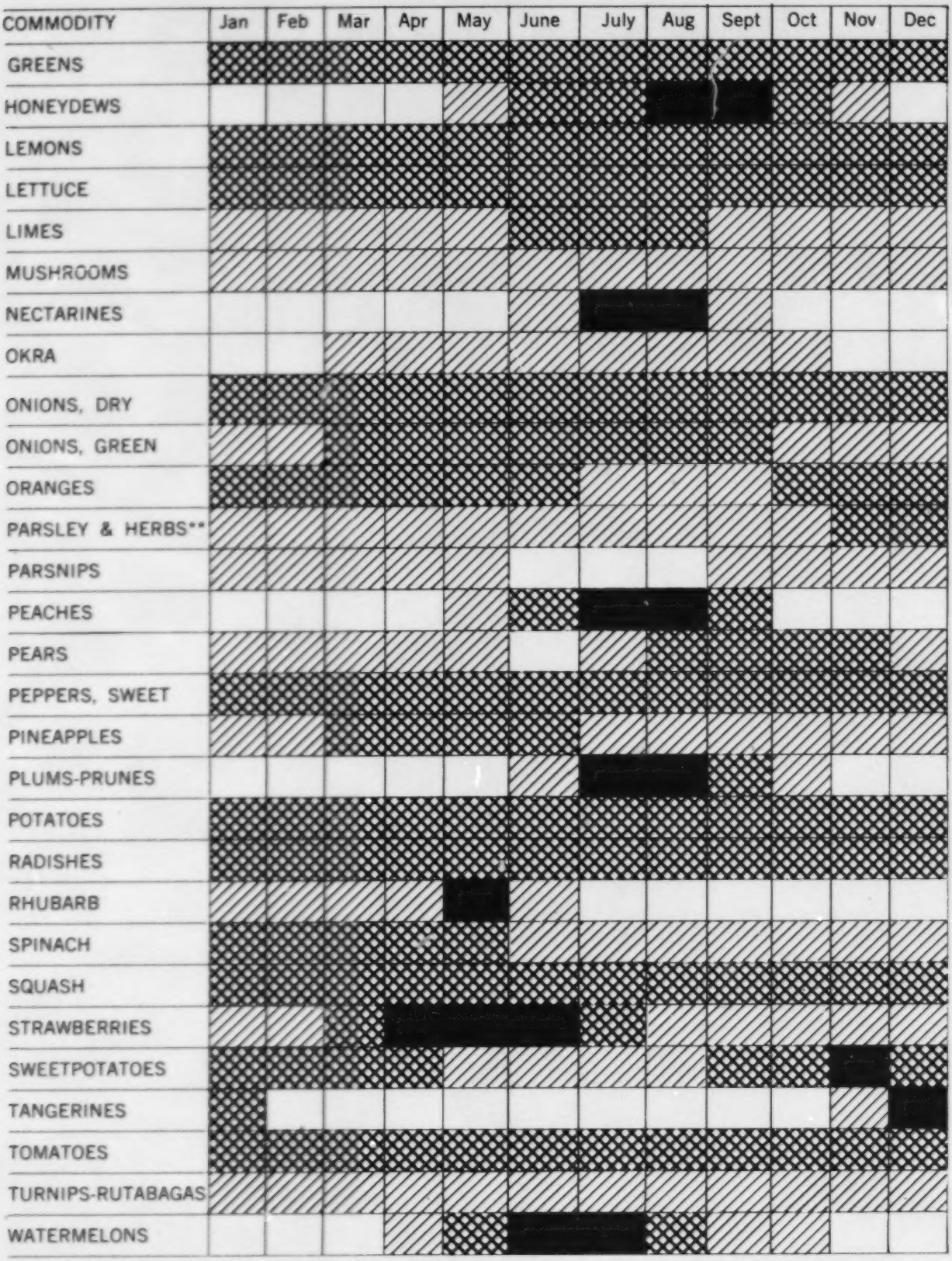
Means supplies are moderate.

Means supplies are plentiful.

Means supplies are exceptionally abundant.

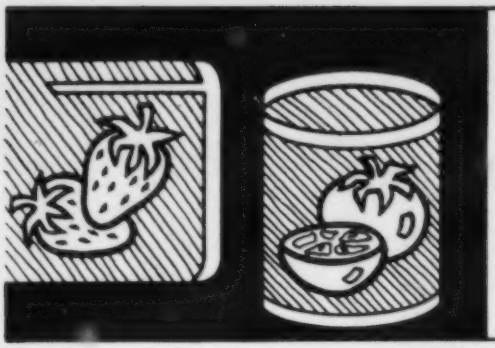


*Mostly blackberries, dewberries, raspberries.



**Includes also parsley root, anise, basil, chives, dill, horseradish, others.

Information courtesy of United Fresh Fruit and Vegetable Association, Washington, D.C.



Lesson Aid VI-- Canned & Frozen Fruits and Vegetables

OBJECTIVES

From this lesson:

1. Students should learn what the USDA grade name on a can or package of frozen fruits or vegetables means.
2. Students should learn about the different styles of canned and frozen fruits and vegetables and when to use them.
3. Students should learn which styles are more expensive and which are less.
4. Students should learn how to tell when cans or packages show signs of damaged contents.
5. Students should learn to read the labels and know what should be on them.

MATERIALS TO USE

Pamphlets

How to Buy Canned and Frozen Fruits
How to Buy Canned and Frozen Vegetables

Flyers

(from PA-976—How to Buy Food)
How to Buy Canned and Frozen Peas
How to Buy Canned Fruit Cocktail
How to Buy Canned Fruits
How to Buy Canned Peaches
How to Buy Canned Tomatoes
How to Buy Vegetables—Canned and Frozen

(separate one-page flyers)
How to Buy Applesauce
How to Buy Canned Pears
How to Buy Canned Pineapple
How to Buy Frozen Strawberries
How to Buy Tomato Catsup, Sauce, Puree, and Paste

Quizzes

How's Your Vegetable Quotient? (p. 46)
Get Your Fruit Facts Straight (p. 44)

Visual Aids

"Behind the Grade Mark"—This 20-minute color film shows how fruits and vegetables are canned and frozen and what USDA grading and the U.S. grades mean to consumers. Purchase price $107.

Supplementary Materials

Fruits in Family Meals—A Guide for Consumers (G-125) 45¢. This pamphlet gives buying, storing, and cooking tips for fruits. Recipes are included.
Vegetables in Family Meals—A Guide for Consumers (G-105) 45¢. This pamphlet gives buying, storing, and cooking tips for vegetables. Recipes are included.

SUGGESTIONS FOR TEACHING

1. Many supermarkets offer at least two grades of some canned fruits or vegetables under their own label. Often, the difference in price indicates a difference in grade. To illustrate differences in quality in different grades or prices of a canned fruit or vegetable, you can use a technique that wholesale buyers call a "cutting." Open two cans—of tomatoes, for example—of a different grade (or, if the grade is not shown, of different price). Pour the contents on separate plates or trays and spread them out. Point out differences such as color, degree of spreading (in products like applesauce), amounts of peel, amount of damaged pieces, etc.

You may want to carry this demonstration a step further by conducting a taste test. Using the cutting sample, and paper cups and plastic spoons, give each student a taste of each sample to compare flavor and texture.

2. Suggest students make a scrapbook of labels from canned and frozen fruits and vegetables. Have them indicate what information—including USDA grade marks or grade names, weight, style, etc.—can help them be better shoppers.

GLOSSARY

You may want to reproduce this glossary for your students. It can serve as a useful reference both during the lesson series and afterwards.

Bush berries—(Also **cane berries**) Group name for berries such as blackberries, boysenberries, dewberries, loganberries, and youngberries.

Choice—(Or U.S. Grade B) Much of the fruit that is processed qualifies for this USDA grade. Only slightly less perfect than U.S. Grade A in color, uniformity, and texture, U.S. Grade B, or Choice, fruits have good flavor and are suitable for most uses.

Drained weight—The weight of the fruit or vegetable in a can or package after the liquid has been drained from it.

Extra Standard—(Or U.S. Grade B) This USDA grade is applied to canned and frozen vegetables that are of very good quality but not quite so well selected for color and tenderness as Grade A.

Fancy—(Or U.S. Grade A) This is the top USDA grade for canned and frozen fruits and vegetables. These are the very best, with excellent color and uniform size, weight, and shape; and they are the most tender, succulent, and flavorful.

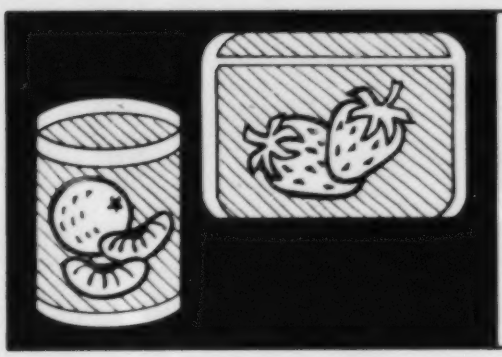
French cut—A style of both frozen and canned green beans. Also called julienne or shoestring, these beans are sliced lengthwise.

Heavy sirup—Canned fruit may be packed in light, heavy, or extra heavy sirup. The heavier the sirup, the sweeter and more flavorful the fruit, and usually, the higher the price.

Net weight—Total contents of fruit and vegetable containers or packages, including juice or sirup. Net weight must appear on the label.

Standard—(Or U.S. Grade C) Quality grade for both fruits and vegetables. Vegetables of this grade are not so uniform in color and flavor as in the higher grades and they are sometimes more mature. Fruit may not be as sweet, and may contain some broken and uneven pieces.

Style—Form of canned or frozen fruits and vegetables, such as slices, halves, etc. This must appear on the label.



Get Your Fruit Facts Straight

Canned and frozen fruits are convenient, and always available. But not everyone knows enough about them to shop wisely.

If you can answer the following questions, you've got your fruit facts straight.

MULTIPLE CHOICE

1. Canned fruit cocktail must contain
   a. definite proportions of peaches, pears, pineapple, grapes, and maraschino cherries.
   b. at least 3 different kinds of fruits.
   c. apples, peaches, grapes, and pears.
2. The term "extra heavy sirup," found on the labels of some canned fruits, means
   a. a sugar sirup thickened with corn starch.
   b. the sweetest, thickest sugar sirup used in canned fruits.
   c. the sirup weighs more than the fruits in the can.
3. "Fancy" canned or frozen peaches are
   a. a special variety.
   b. extra-large peaches.
   c. of top quality.
4. The U.S. grade name on a can or frozen package of fruit can help you
   a. determine the variety of fruit.
   b. decide how to use the fruit.
   c. figure out the number of servings.
5. In selecting canned and frozen fruits, you should avoid
   a. dented cans.
   b. bulging or swelling cans.
   c. solidly frozen packages.
6. In canned and frozen fruits, regular sized pieces or whole fruits are generally more expensive than mixed pieces of various sizes and shapes.
   a. True.
   b. False.
7. Most frozen fruits are
   a. packed with dry sugar or sugar sirup.
   b. artificially colored.
   c. packed whole.
8. Canned fruits will retain their quality for a year or more
   a. if kept at a temperature no warmer than 75° F.
   b. if kept at a temperature no warmer than 90° F.
   c. regardless of temperature.
9. Which of the following is not required by law to be on the front panel of labels on canned and frozen fruits?
   a. the common name of the fruit.
   b. liquid in which it is packed.
   c. quality.
10. Price is often an indication of the quality of canned and frozen fruits.
    a. True.
    b. False.

ANSWERS

1. (a) Definite proportions of peaches, pears, pineapple, grapes, and maraschino cherries. Fruit cocktail is one of a few fruit mixtures which is standardized by Federal law. Peaches and pears make up the greater part of the mixture.

2. (b) The sweetest, thickest sugar sirup used in canned fruits. Canned fruits may be packed in light, heavy, or extra heavy sirups, in water, in slightly sweetened water, or in fruit juices. The heavier the sirup, the sweeter the fruit and sometimes the higher the price.

3. (c) Of top quality. The grades established by USDA to define specific levels of quality in canned and frozen fruits are:

U.S. Grade A (or U.S. Fancy)—top quality
U.S. Grade B (or U.S. Choice)—very good quality
U.S. Grade C (or U.S. Standard)—fair quality.

When the fruit has been officially graded for quality under continuous USDA inspection, it may carry the official grade name, such as "U.S. Grade A," or the statement "Packed under continuous inspection of the U.S. Department of Agriculture." The grade name and the statement may also appear within the USDA shield.

Sometimes, however, the grade name is shown without "U.S." in front of it, for example, "Fancy." If the grade name appears alone, the fruit must meet the quality of the grade shown, even though the product has not been officially inspected for quality.

4. (b) Decide how to use the fruit. Different qualities of fruits are suited to different uses.

Top quality, Grade A fruits have an excellent color and uniform size, weight, and shape. They are a good choice for dessert or fruit salad for a company dinner.

Grade B fruits, only slightly less perfect than Grade A in color, uniformity, and texture, have good flavor and are suitable for everyday desserts, salads, and fruit cups.

Grade C fruits, which are not as sweet or as uniform in appearance as the higher grades, are a thrifty buy and good for use in puddings, jams, and frozen desserts.

5. (b) Bulging or swelling cans. These indicate spoilage. Small dents in a can will not harm the contents unless the dents have pierced the metal or loosened the can seam.

Frozen fruits should be frozen solid. If fruits in a package are not firm, it may mean they have been defrosted at some time during marketing and therefore may have lost quality. Stains on the package may also indicate defrosting.

6. (a) True. Whole fruits, halves, and slices of similar size are more expensive than mixed pieces. While you may wish to spend more money for whole fruits or halves for special purposes, mixed pieces are a good buy for gelatin molds and other dishes where the appearance of the fruit is not important.

7. (a) Packed with dry sugar or sugar sirup.

8. (a) If kept at a temperature no warmer than 75° F. Canned fruits that have been stored at very warm temperatures or for long periods of time may lose quality (the color, flavor, or texture may change). The fruit is still safe to eat, however.

9. (c) Quality. Federal regulations do not require the grade of the fruit to be shown on the label. If the grade is not shown, try different brands to find the quality you like.

Federal law does require the label to state on the front panel the common or usual name of the fruit; the form or style of fruit (such as whole, slices, or halves); for some fruits, the variety or color; the sirups, sugar, or liquid in which a fruit is packed; and the total contents.

Other information required on the label, although not on the front panel, includes ingredients (such as spices, flavoring, coloring, special sweeteners, if used); any special type of treatment; and the packer's or distributor's name and place of business.

10. (a) True. Most canned and frozen fruits are packed and priced according to quality. Sometimes stores offer two or more qualities under their own name labels, with the higher quality priced higher.

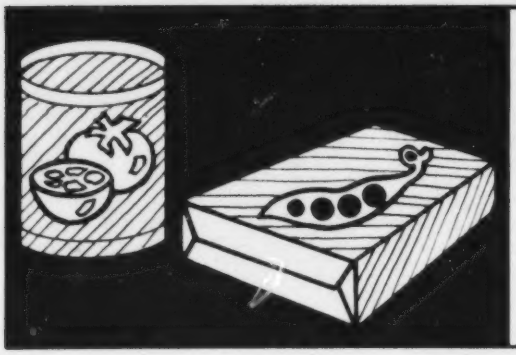
SCORING

Give yourself five points for each correct answer.

40–50 Excellent. You have your fruit facts straight and you know how to shop wisely for canned and frozen fruits.

30–40 Good. You're a good shopper, but you would probably find quite a bit of useful information in "How to Buy Canned and Frozen Fruits."

Below 30 Fair. Your buying habits could be improved.



How's Your Vegetable Quotient?

The myriad supplies of canned and frozen vegetables found in today's food markets may confuse the average food buyer. And it's no wonder, for a multitude of brands, styles, seasonings, garnishes, and prices confront the shopper.

The following VQ (vegetable quotient) test highlights many points helpful in making a wise choice from the shelf or frozen food counter.

MULTIPLE CHOICE

1. Vegetables that are canned and frozen are
   a. leftover fresh vegetables.
   b. grown especially for canning or freezing.
   c. grown in hothouses.
2. The least expensive styles of vegetables are
   a. French-style or julienne.
   b. whole vegetables.
   c. dices, short cuts, or pieces.
3. You can tell a canned or frozen vegetable is of high quality by its
   a. taste.
   b. appearance.
   c. price.
   d. all of these.
4. The term "U.S. Fancy" on a can or frozen package of vegetables refers to
   a. the style of the vegetable.
   b. its quality.
   c. the sauce it is packed in.
   d. the size of the can or package.
5. Bulging or swelling of a can indicates
   a. spoilage.
   b. the can was dropped.
   c. overpacking.
6. When buying frozen vegetables, you should make sure the package is
   a. wet.
   b. soft.
   c. firm.
7. The U.S. Department of Agriculture inspects all canned and frozen vegetables for wholesomeness.
   a. True.
   b. False.
8. Labels on canned and frozen vegetables are required by Federal law to show
   a. the number of servings
   b. the grade and quality of the vegetable.
   c. the style of the vegetable.
9. The contents listed on a can of vegetables show
   a. the weight of the vegetable, including any liquid in the can.
   b. the weight of the vegetable, not including any liquid.
   c. the volume of the cooked vegetable.
10. Most canned and frozen vegetables are packed and priced according to their quality.
    a. True.
    b. False.

ANSWERS

1. (b) Grown especially for canning or freezing. Because vegetables should be canned or frozen as soon as possible after harvest to retain their nutritional value and quality, canners and freezers usually contract to buy vegetables before they are planted. The vegetables are then delivered to the processing plant as soon as they are harvested, while they are at their best.

2. (c) Dices, short cuts, or pieces. Whole vegetables usually cost more than cut styles because it is hard to keep these fragile products whole during processing. French-style or julienne vegetables, which are sliced lengthwise, are more costly to process than other cut styles. Short cuts, dices, and pieces are least expensive and a good buy for use in soups, stews, or souffles.

3. (d) All of these. Top-quality canned and frozen vegetables are the most tender and flavorful and most uniform in color and shape or size. They therefore usually cost more than lower qualities.

4. (b) Its quality. U.S. Fancy is another name for U.S. Grade A. U.S. Grades A, B, and C were established by USDA to describe different levels of quality in canned and frozen vegetables.

U.S. Grade A, top quality, is the kind of vegetable you'd probably serve at special meals.

U.S. Grade B (or Extra Standard) vegetables are of next highest quality; they look and taste almost as good as U.S. Grade A and are good for everyday meals or for use in casseroles or gelatin salads.

U.S. Grade C (or Standard) vegetables are more mature and not as uniform in color and flavor as the higher grades. They are a thrifty buy for use in dishes where appearance of the vegetable is not important.

When the U.S. grade name is shown on a label, it means the vegetables have been officially graded by USDA.

5. (a) Spoilage. Don't buy or use cans that are bulged or swelling.

6. (c) Firm. Don't buy soft, limp, wet, or sweating packages; these are signs that the vegetables have defrosted or are in the process of defrosting. The vegetables may be safe to eat, but normally there will be a loss of quality.

7. (b) False. The U.S. Department of Agriculture does inspect canned and frozen vegetables for **quality,** upon request of processors, but assurance of the wholesomeness of these products is the responsibility of the Food and Drug Administration.

Inspection for quality (grading) is not required by law and processors must pay a fee for the service. Under USDA's continuous inspection program, an inspector is on duty in the processing plant at all times the plant is operating. In addition to checking the quality of the product, he checks the plant and equipment for cleanliness.

When vegetables are packed under continuous USDA inspection, the U.S. grade name may be shown on the can or package. The grade name and the statement, "Packed under continuous inspection of the U.S. Department of Agriculture," may also be shown within the USDA shield.

8. (c) The style of the vegetable. The grade of the vegetable, even if it has been packed under continuous USDA inspection, is not required to be shown. Federal law also does not require listing the number of servings, but if this is shown the law requires that the label give the size of the servings in common measures, such as cups or ounces.

9. (a) The weight of the vegetable including any liquid in the can. Contents of canned and frozen vegetables are shown as net weight, not volume.

10. (a) True. Most processors and distributors have quality control programs whether or not they use USDA's grading service, and pack vegetables in at least two grades. The higher grade commands a better price on the market. Some processors use a grade name such as "Fancy" without the "U.S." in front of it. Vegetables so labeled must meet the quality requirements of the U.S. grade.

SCORING

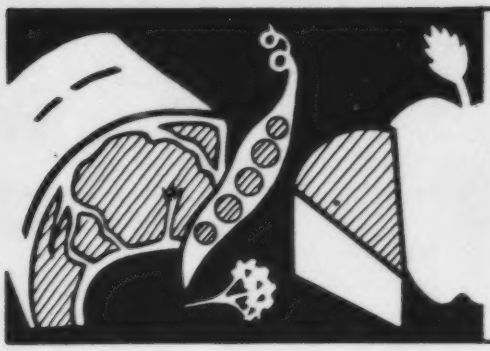
Give yourself five points for each correct answer.

40-50 Excellent. You know how to buy canned and frozen vegetables to suit your needs.

30-40 Good. You're a good shopper, but you would still benefit from "How to Buy Canned and Frozen Vegetables."

Below 30. Your buying habits could be improved.

50



Lesson Aid VII--More for Your Money

OBJECTIVES

This supplementary lesson may be of special interest to instructors teaching low income groups, but would be useful to groups at any income level. It is a review of all the food categories and uses many materials also used in the first six lessons. You may use this lesson separately, or you may want to incorporate appropriate sections into each of the other lessons as you use them.

From this lesson:

1. Students should learn how to buy: economy cuts of meat; foods when they are in season or on sale, and therefore less expensive; less expensively packaged foods; and other economical foods, such as instant nonfat dry milk.
2. Students should learn when lower USDA grades for food are a good buy.
3. Students should learn that foods are not more nutritious just because they are an expensive brand or a high quality grade.
4. Students should learn preparation and cooking techniques to make economical meals as good as meals that cost more.
5. Students should learn something about the inexpensive protein available in dry beans, peas, and lentils.

MATERIALS TO USE

Pamphlets

How to Buy Dry Beans, Peas, and Lentils

Flyers

(from PA-976—How to Buy Food)
How to Buy Ground Beef
How to Cook Beef

(separate one-page flyers)
How to Buy Dry Beans, Peas, and Lentils
How to Buy Rice
How to Cut Up A Chicken

Supplementary Materials

Cereals and Pasta in Family Meals—A Guide for Consumers (G-150) 35¢. This pamphlet gives buying, storing, and cooking tips for breakfast cereals, rice, corn meal and hominy grits, bulgur, and pasta. Recipes are included.

Money-saving Main Dishes (G-43) 60¢. Students may want to order their own copies of this recipe book to use in learning to make inexpensive, nutritious meals.

Soybeans in Family Meals (G-208) 35¢. This pamphlet tells how to use fresh and dry soybeans; soybean sprouts; soyflour, grits, and milk; and soybean mash, curd, and oil. Recipes are included.

SUGGESTIONS FOR TEACHING

1. An excellent source book for this lesson is "Your Money's Worth in Foods" (see p. 11). This book has many good ideas for meal planning and food shopping for consumers interested in economizing on food.
2. Emphasize during this lesson that USDA grades for foods are **not** a measure of nutritive value. For example, Grade B eggs are just as nutritious as Grade AA or Grade A eggs. Many of the How to Buy pamphlets tell when to use lower grades for economy.
3. Have students do some price comparing in the supermarket:

   a. Suggest that they list the prices for different forms of the same food. For example, have them compare the cost per serving of fresh green beans, canned green beans, and frozen green beans.

   b. Suggest that they compare prices between different brands and different styles of a product. Make sure that they compare the same **styles** when comparing brands. Make sure that they compare, for example, two brands of asparagus spears, not one brand of asparagus spears and another brand of asparagus tips or cuts. Also be sure they compare the same **brand** when comparing different styles.

   You may want to assign a specific food or foods

to each student. Ask each to make a list and bring it to class to support his findings. One student could check prices of different types of green beans; another, different ways of buying orange juice (canned, bottled, frozen concentrate, made from fresh oranges, etc.), another, different brands of bacon; and another, different brands or forms (canned, frozen, dried) of chicken soup. This exercise can make students aware of how simple it is to get the same product less expensively by comparative shopping both for brands and for styles.

4. Have a recipe exchange session. Let students share their money-saving recipes and ideas for leftovers. This would be a good time to emphasize the "How to Buy Ground Beef" and "How to Cook Beef" flyers. Discuss different ways to use ground meat, which kinds are more economical for different purposes, etc. Also, discuss how to cook economy cuts of meat for good meals.

5. If students are not familiar with instant nonfat dry milk, you may want to demonstrate its use, either by itself or as a cake ingredient, for example. This will show that the product is both economical and tasty.

6. Familiarize students with dry beans, peas, and lentils. Emphasize that these foods are excellent protein sources and good sources of iron as well. Conduct a cooking demonstration with dry beans, split peas or lentils, so students will be familiar with the techniques. Highlight how to use each type in a meal.

7. Review these charts and tables during this lesson: "The Cost of Protein Foods" (p. 19 and p. 52), "Calculating the Cost of Eggs" (p. 30), "Comparative Costs of Chicken Parts" (p. 34), "Comparative Costs of Turkey Parts" (p. 35), and "Fresh Fruit and Vegetable Availability" (p. 40). All of these can help students get more for their money.

GLOSSARY

You may want to reproduce this glossary for your students. It can serve as a useful reference both during the lesson series and afterwards.

Black beans—(Or **black turtle soup beans**) Dry beans used in thick soups and in oriental and Mediterranean dishes.

Black-eye peas—(Or **black-eye beans** or **"cow peas"**) These dry beans are small, oval-shaped, and creamish white with a black spot on one side. They are used primarily as a main dish vegetable. Black-eye peas **are** beans. There is no difference in the product, but different names are used in some regions.

Dry split peas—These dry peas have had their skins removed and they are mainly used for split pea soup. Split peas are split during processing, when a machine breaks them in half after their skins have been removed.

Dry whole peas—These peas are used in making soups, casseroles, puddings, vegetable side dishes, dips, and hors d'oeuvres.

Great Northern beans—Larger than but similar to pea beans, these beans are used in soups, salads, casserole dishes, and home-baked beans.

Ground beef—Also called **hamburger.** A label name for one kind of the broad category of "ground beef." Hamburger usually has the most fat and costs the least. It is good for dishes like spaghetti, chili, meat loaf, and casseroles.

Ground chuck—This kind of ground beef makes an excellent beef burger or "salisbury steak." It usually has less fat and more lean meat than ground beef—and, if so, will shrink less in cooking. Ground chuck has enough fat, however, for good flavor and juiciness.

Ground round—This type of ground beef is usually very lean and more expensive than ground beef or chuck. Because it is low in fat ground round will not be quite as tender or juicy as other kinds of ground beef.

Ground sirloin—(Also called **chopped sirloin**) Usually the most expensive type of ground beef. Its excellent flavor is good for special recipes and deluxe hamburgers. However, you may find ground sirloin very much like ground chuck.

Instant nonfat dry milk—A dairy product resulting from the removal of fat and water from pasteurized fluid milk. It's made by a process that produces larger flakes than regular nonfat dry milk, so that it will dissolve "instantly" in water.

Kidney beans—A dry bean that is large, red, and kidney-shaped. Kidney beans are popular for chili con carne, salads, and many Mexican dishes.

Lentils—A disc-shaped legume about the size of a pea. Good for soup, or with fruits, vegetables, or meat.

Lima beans—Not widely known as a dry bean, lima beans make good main dish vegetables and can be used in casseroles. They are broad and flat and come in different sizes.

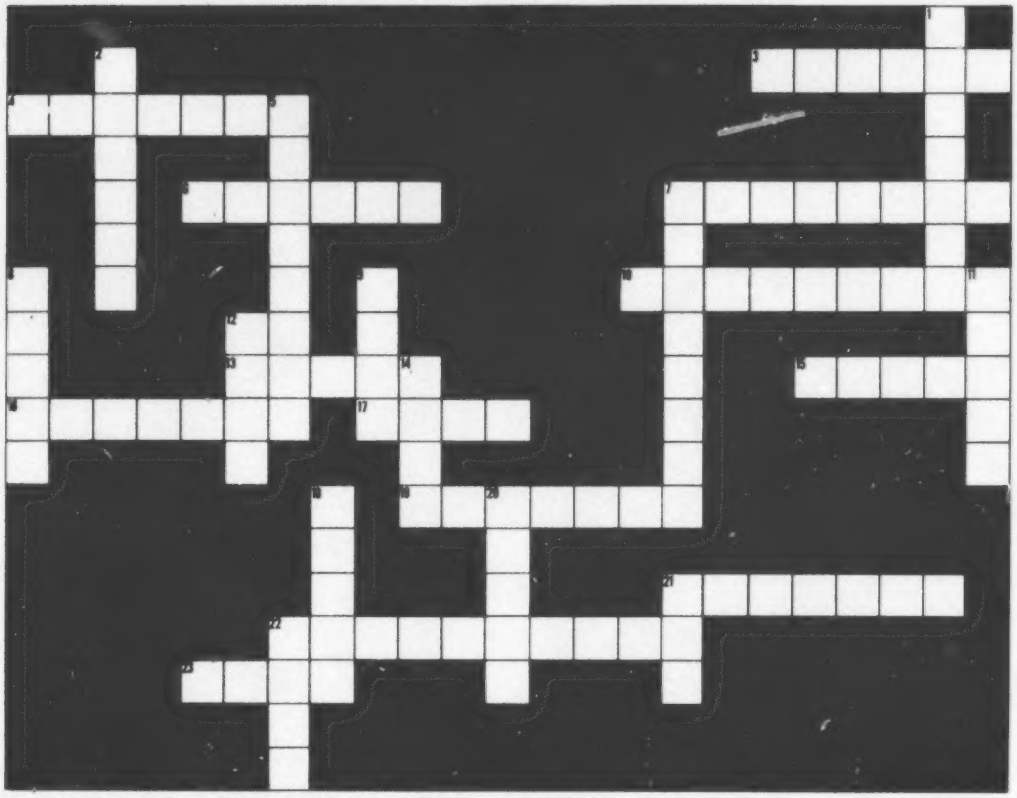
Navy beans—This is a broad term that includes **Great Northern, pea, flat,** and **small white beans.**

Pea beans—Small, oval and white, pea beans are good for home-baked beans, soups, and casseroles.

Pinto beans—These beans are of the same species as the kidney and red beans. Beige-colored and speckled, they are used mainly in salads and chili.

Red and pink beans—These two types of dry beans are related to the kidney bean. Both are used in Mexican dishes and chili. Pink beans have a more delicate flavor than red beans.

Crossword Puzzle



This crossword puzzle will test your familiarity with the words in the glossaries.

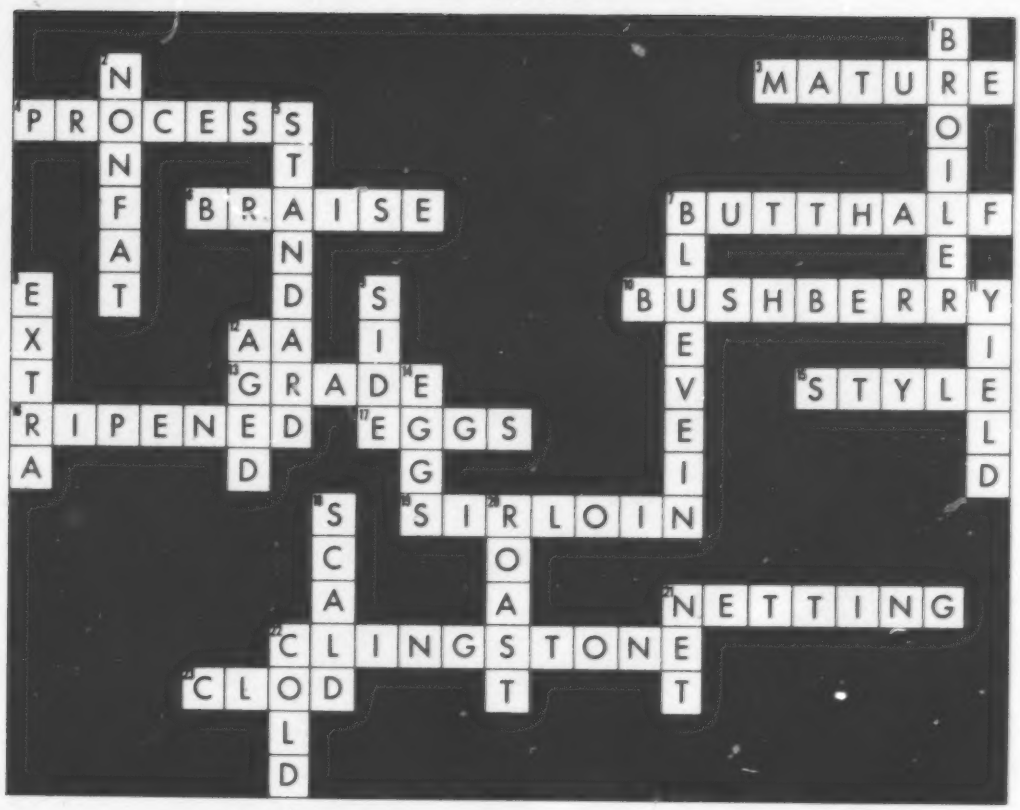
ACROSS

3. A ____ fruit is one that is ready to be picked.
4. ____ cheese is a blend of fresh and aged natural cheeses, shredded, mixed, and pasteurized.
6. To pot roast.
7. Ham has a shank half and a ____ ____. (two words)
10. A black berry or boysenberry is an example of a ____ ____. (two words)
12. USDA Grade __ describes eggs of the very best quality.
13. USDA Prime is a quality ____ for beef and lamb.
15. Canned and frozen fruits and vegetables must have on their label the common name of the product, the net weight, and the ____, such as "French cut" green beans.
16. Cheddar cheese is a firm ____ cheese.
17. Jumbo, Extra Large, Medium, Small, Peewee. These are sizes for ____.
19. A large steak, good family fare.
21. Vein-like lines on the rind of some melons.
22. With this type of peach, the flesh clings tightly to the pit.
23. Shoulder ____ is a meaty cut of beef roast, from the outside of the chuck.

DOWN

1. A young, tender-meated chicken may be labeled fryer, roaster, or ____.
2. Instant ____ dry milk.
5. This grade of beef has a high proportion of lean and very little fat.
7. ____ mold ripened cheese is cured by use of a characteristic mold culture that grows throughout the interior of the cheese.
8. U.S. ____ Grade nonfat dry milk must mix instantly, have a sweet and pleasing flavor, and have uniform natural color.
9. A ____ of beef is half a carcass, including both fore and hind quarters.
11. ____ grades measure the percentage of lean meat a carcass contains.
12. How sharp Cheddar cheese is depends on how long it has been ____.
14. Same as 17 across.
18. Brownish discoloration which sometimes develops on the skins of apples or other fruits on cold storage.
20. To cook meat without added water, uncovered, in the oven.
21. Canned fruits and vegetables must have the ____ weight on their labels.
22. ____ pack cheese is a blend of natural cheeses, but it is not heated, as is pasteurized process cheese.

Answers



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COST OF PROTEIN FOODS

Table 2. Cost of 20 grams of protein at July 1974 prices. (Twenty grams of protein is about a third of the recommended daily allowance for a 20-year-old man.)

Food	Market unit	Price per market unit [1]	Part of market unit to give 20 grams of protein	Cost of 20 grams of protein
Peanut butter	12 oz.	$0.62	.23	$0.14
Eggs, large	doz.	.62	.25	.16
Bread, white enriched	lb.	.35	.51	.18[2]
Dry beans	lb.	.78	.24	.19
Chicken breasts	lb.	.75	.25	.19
Chicken, whole, ready-to-cook	lb.	.52	.37	.19
Beef liver	lb.	.91	.24	.22
Hamburger	lb.	.90	.24	.22
Milk, whole fluid	half gal.	.78	.29	.23[3]
Turkey, ready-to-cook	lb.	.66	.35	.23
Pork, picnic	lb.	.72	.32	.23
Bean soup, canned	11.5 oz.	.26	.96	.25
Ham, whole	lb.	.90	.29	.26
Tuna, canned	6.5 oz.	.59	.44	.26
American process cheese	8 oz.	.72	.38	.27
Ham, canned	lb.	1.52	.24	.37
Frankfurters	lb.	1.03	.36	.37
Sardines, canned	4 oz.	.40	.94	.38
Pork loin roast	lb.	1.13	.33	.38
Round beefsteak	lb.	1.74	.22	.38
Chuck roast of beef, bone in	lb.	1.09	.35	.38
Ocean perch, fillet, frozen	lb.	1.08	.36	.39
Liverwurst	8 oz.	.68	.60	.40
Salami	8 oz.	.86	.50	.43
Rump roast of beef, boned	lb.	1.70	.26	.44
Sirloin beefsteak	lb.	1.75	.28	.49
Rib roast of beef	lb.	1.52	.33	.50
Bologna	8 oz.	.71	.73	.52
Haddock, fillet, frozen	lb.	1.50	.35	.53
Pork sausage	lb.	1.02	.52	.53
Pork chops, center cut	lb.	1.54	.35	.53
Bacon, sliced	lb.	1.09	.52	.57
Lamb chops, loin	lb.	2.26	.31	.69
Porterhouse beefsteak	lb.	2.06	.34	.69
Veal cutlets	lb.	3.45	.21	.74

[1] Average retail prices in U.S. cities, Bureau of Labor Statistics, U.S. Department of Labor.

[2] Bread and other grain products, such as pasta and rice, are frequently used with a small amount of meat, poultry, fish or cheese as main dishes in economy meals. In this way the high quality protein in meat and cheese enhances the lower quality of protein in cereal products.

[3] Although milk is not used to replace meat in meals, it is an economical source of good quality protein. Protein from nonfat dry milk costs less than half as much as from whole fluid milk.

Table reprinted from: Family Economics Review, Fall 1974. Agricultural Research Service, USDA.